

Desert

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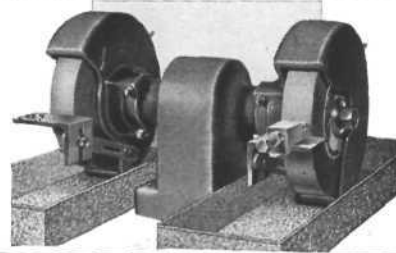
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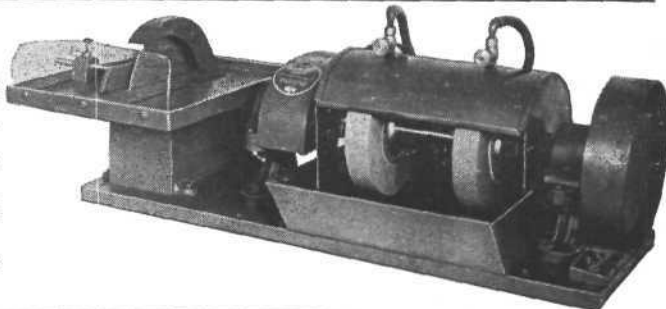
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DESERT CALENDAR

October—There will be a special exhibit of the paintings of Manuel Rivera Regalado depicting life in early California during the month at Southwest Museum, Los Angeles.

October 3—Spanish Village Fiesta at Taos, New Mexico.

October 3-4—Annual Apple Day at Julian, California.

October 3-4—Feats of St. Francis of Assisi, Patron Saint of Santa Fe, New Mexico.

October 4—Annual fiesta and dances at Nambe Indian pueblo, New Mexico.

October 4-6—Annual Navajo Indian Fair at Shiprock, New Mexico.

October 6-10—Eastern New Mexico state fair at Roswell, New Mexico.

October 8-11—Tri-State fair and rodeo at Deming, New Mexico.

October 12 — Annual Pegleg Smith Liar's Contest and Gold Trek in Borrego Valley, California. Hugh Woods, chairman in charge.

October 16-17-18—16th Annual Pioneer Days celebration at Twentynine Palms, California. Parade on Saturday, 17.

October 16-17-18 — Helldorado program at Tombstone, Arizona. Mayor Wally Foster, Chairman.

October 17-25—Graham County Fair at Safford, Arizona.

October 18-24—Southwestern Cattle Festival at Clovis, New Mexico.

October 24—United Nations Day to be observed in Utah.



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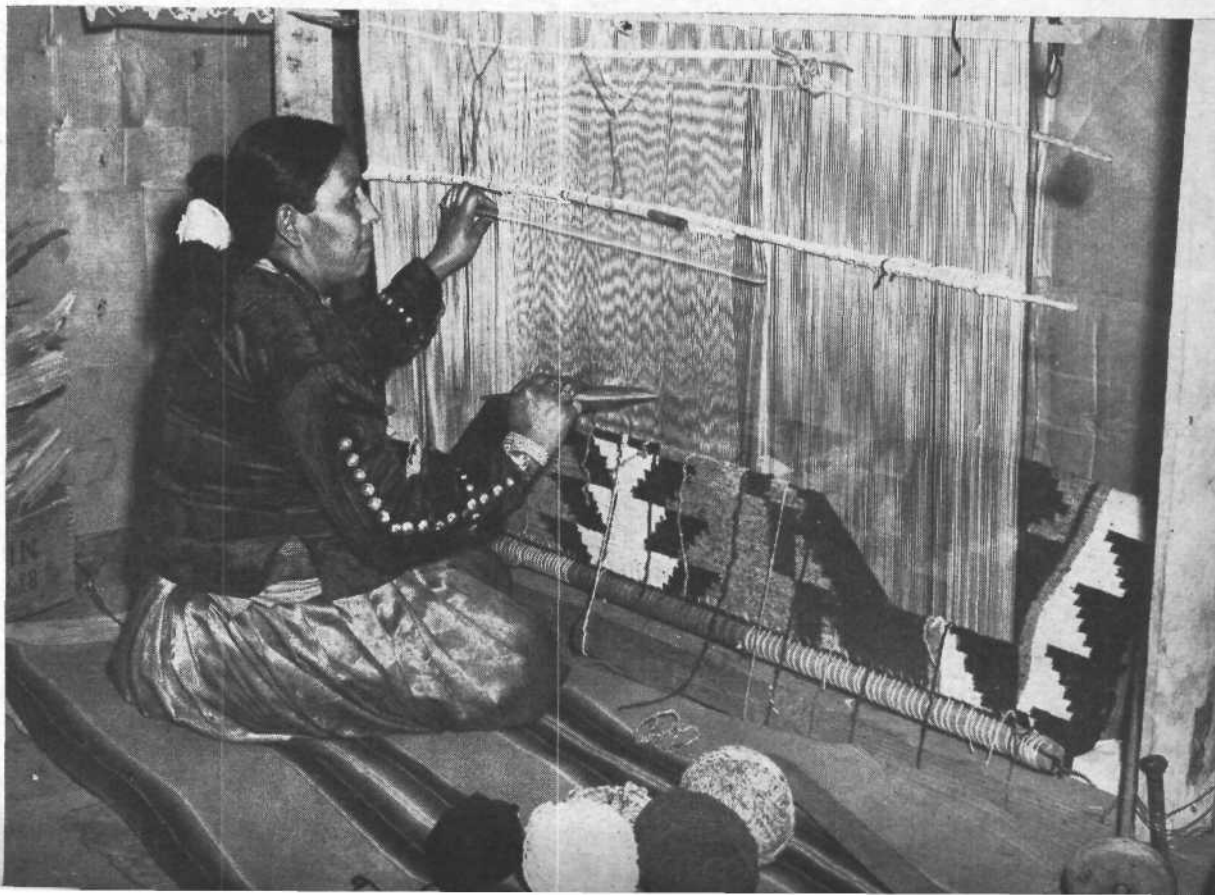
PICTURES OF THE MONTH . . .

Saguaro Ballet . . .

Graceful arms of a giant saguaro cactus dip earthward in this photographic composition by Clyde B. Smith of Berkeley, California. The picture, taken with a Speed Graphic camera, fast pan film, 23A filter, 1/5 second at f22, was awarded first prize in Desert Magazine's August photo contest.

Navajo Weaver . . .

Dr. J. Robert Lindsay of Ganado, Arizona, photographed this Navajo woman at her loom to win second prize in August. Dr. Lindsay used a Speed Graphic camera, 1/100 second at f22.





Mexican port of entry at Tijuana.

Mexican Tour--for Motorists

Thanks to Mexico's new highway-building program, and to the skill of Mexican engineers, it is now possible for a motorist from the United States to cross the international border below Yuma, Arizona, or San Diego, California, and at two intermediate points, spend a day or two making an easy trip along the Baja California side of the international line—without passport restrictions.

By RANDALL HENDERSON

Map by Norton Allen

"**Y**OU DO NOT need a visa," the Mexican consul was telling me," as long as you do not plan to stay more than three days, and your journey does not extend beyond Tijuana, Ensenada, Mexicali, San Felipe or San Luis."

I had gone to Santiago A. Campbell, the consul in San Diego, to inquire about passport requirements for a two-day motor trip over the 165-mile highway which the Mexican government has completed in recent months from Tijuana to San Luis near the Colorado River in Sonora. I wanted this information not only for my own use but also that I might pass it along to *Desert Magazine* readers who may wish to take this delightful weekend excursion into colorful Baja California.

The new highway parallels the bor-

der—entirely on Mexican soil, never dipping more than 25 miles down into the interior of the peninsula. Its construction has been in progress for six years, but it was not until a few months ago that the last link was completed—the 15-mile grade that extends from the top of the Sierra Juarez down to the floor of the desert in Mexicali Valley. It required four years to blast a good roadbed out of the precipitous east face of the Sierra Juarez, but the Mexican engineers did a good job while they were at it.

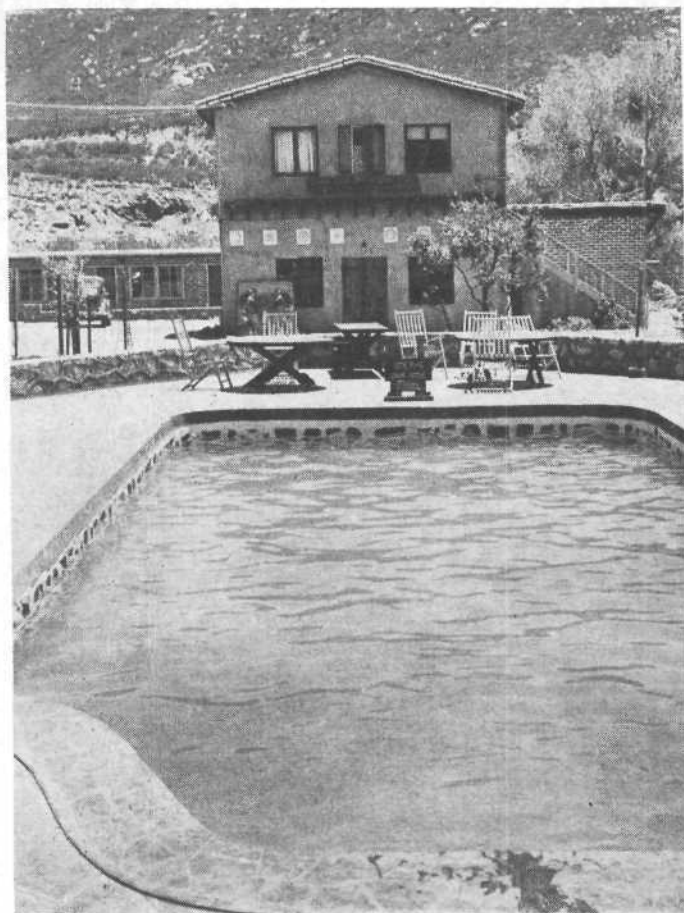
What Sr. Campbell told me about passport requirements was confirmed at other ports of entry along the border. It is the policy of Mexican officials to encourage tourist travel in their country, and they have made it easy for Americans to cross and re-

cross the international border between the two countries.

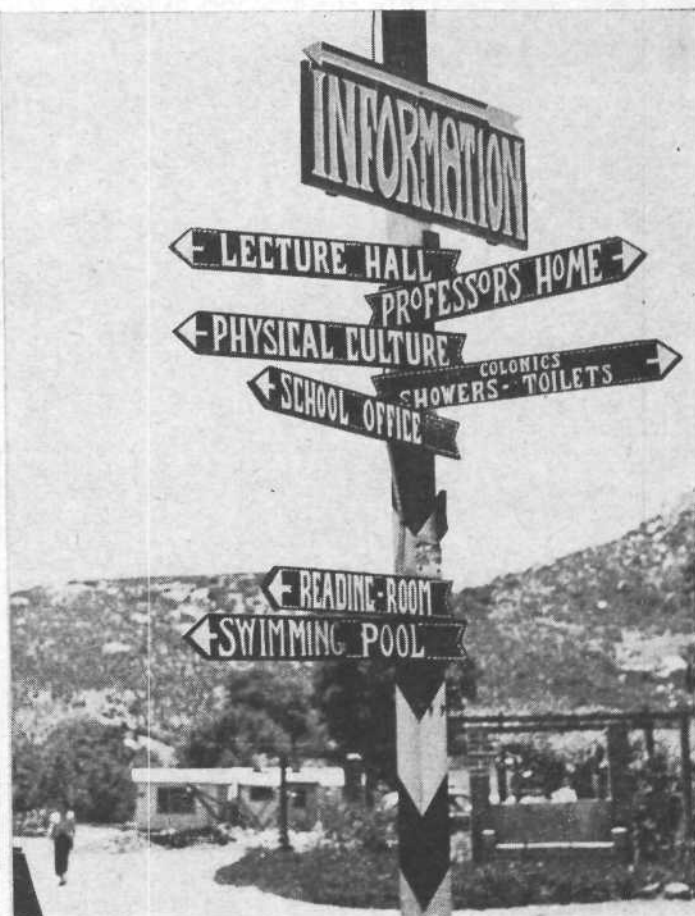
Long lines of cars were inching through the inspection gates at the San Ysidro-Tijuana port of entry an hour later when Cyria and I arrived there to begin our Mexican journey. Only 17 miles from San Diego, this is one of the busiest ports along the entire border. Hundreds of curio stores and eating places thrive on American tourist dollars. Customs and immigration inspectors on both sides of the line are courteous, and they expedite the heavy flow of traffic as much as possible.

I stopped at the American customs house before crossing the line to declare my German-made camera. Customs Form 4455 is a simple certificate which would enable me to bring the camera back into the United States later without question. The form is used for the registration of dutiable goods taken into Mexico with the intent of bringing them back into the United States later. No special certificate is required for automobiles, however.

When I asked the customs inspector



Swimming pool at Rancho La Puerto, or Grape Valley Lodge where Professor Edmond Szekely directs the Essene School of health culture.



Students at Grape Valley Lodge find health and contentment through a regular program of grapes, fresh air, sunshine, study and exercise.

period of turmoil in Mexico City which followed the hasty departure of President Diaz, Cantu often found himself without instructions or with conflicting orders from his superiors at the national capital. Gradually he assumed more independent authority than is usually granted to a territorial executive and eventually the central government suspected him of conspiring to set up an independent republic in the northern district. A crisis came when the president of Mexico dispatched an army under the command of Abelardo Rodriguez to cross the Gulf of California and put Cantu under arrest.

Rodriguez was one of the youngest generals in the Mexican army at that time, but he organized his expedition so well that before he arrived in the territorial capital of Mexicali, Cantu left his office and crossed to the United States for refuge.

At a later date Gen. Rodriguez was appointed governor of the Northern District, and it was during his administration in 1924 that he established a summer capitol on the top of the Sierra Juarez at Alaska. For several years a small company of soldiers was stationed here. The summer capitol idea was abandoned after Gen. Rodriguez completed his tour of duty as

governor. Today there are a couple of service stations and a modest stock of groceries available at the settlement.

During his governorship Estaban Cantu constructed a passable road connecting Mexicali with Tijuana. The biggest obstacle was the rugged east face of the Sierra Juarez. The governor's engineers finally overcame this barrier by selecting the steepest pitch and then blasting a zigzag trail from the floor of the desert to the site which later became Alaska. It was a terrific road with hairpin turns and barely wide enough for two cars to pass. Motorists who traveled that old road will never forget the hazardous climb where the turns were so sharp it was necessary for a car with a long wheel-base to back and turn two or three times to get around the corner.

But that road served its purpose until within the last year when a new generation of engineers with ample funds selected an easier grade and blasted out millions of tons of hard granite to provide a wide cut with generous curves down to the floor of the desert. Today the trip can be taken with pleasure, and with a growing sense of appreciation for the work done by Mexico's highway department.

Looking down from the top of the

grade we could see the broad expanse of Imperial Valley extending to the distant horizon in the northeast, and to the Cocopah Range on the Mexican side of the line. Immediately below was the little black butte known as Pinto Mountain. This has long been a fertile collecting area for rockhounds. Scattered around the base of the butte were many tons of petrified wood, and the butte itself is composed of a banded rhyolite in beautiful shades of cream, tan and red. The material is on the Mexican side south of Coyote Wells.

Too many collectors were crossing the border here without the usual customs and immigration formalities, and both American and Mexican officers began patrolling the area. That put an end to the easy access to Mexico at this point, but recently I read that the Brawley, California, Gem and Mineral Society had conducted an authorized field trip to Pinto Mountain, crossing the border at the Calexico-Mexicali port and visiting the mineral field with an escort of Mexican officers.

Our trip was in June, and when we reached the floor of the desert the heat waves were shimmering over the great expanse of Laguna Salada, the dry lake which extends as far to the south as the eye can see. Our road passed



Top—Mexican port of entry at Calexico.

Center—American customs house at Tecate port of entry

Bottom—American customs house at San Luis port of entry.

along the north end of the lakebed.

When I first saw Laguna Salada in 1922 it was a lake about the size of Salton Sea. It was fed from overflow water from the Colorado River, which backed into the basin from a channel at the south end during periods when the Colorado was at flood peak.

But the lake was shallow, and when three or four years passed without a new supply of water, it would evaporate and leave the basin dry. It was dry in 1927, and then a year or two later it filled again. Within two years it has evaporated, and now that Hoover dam holds back the flood waters 250 miles upstream it is unlikely that Laguna Salada ever again will be a lake. This prediction is doubly certain for the reason that in the construction of the new Mexicali-San Felipe highway the Mexican engineers filled in a long rock causeway across the lower neck of the Laguna for roadbed purposes, closing off the channel through which water formerly entered the basin. Flood waters of cloudburst proportions from the surrounding mountain ranges could create temporary pools in the bottom of the basin, but these would soon dry up.

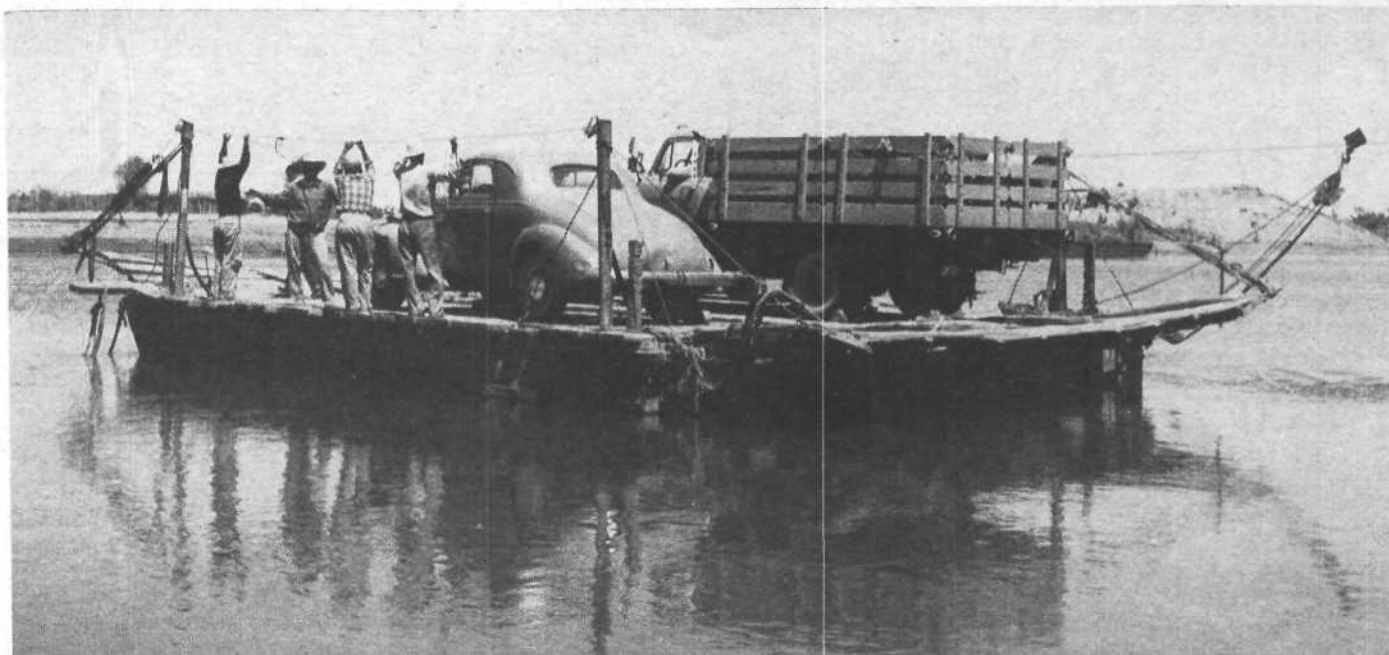
Extending back into the Sierra Juarez Range from the floor of the dry lake are 12 lovely palm canyons, some of which have been mapped and described in past issues of *Desert Magazine*.

We crossed the Cocopah Range through a low pass at the base of Mt. Signal, and then our road entered the cultivated area of the Colorado delta, also called Mexicali Valley.

In recent years Mexican farmers have so improved their farming methods here that the fields, with an ample supply of water from the Colorado River, resemble in nearly every respect the cotton plantings in Imperial and Yuma Valleys. High cotton prices during the war years have enabled the ranchers to build comfortable homes, and the crude farming tools of the interior of Mexico have been replaced by the best American-made motor equipment.

Then we came to Mexicali, capital city of the Northern District. Since I first saw Mexicali in 1922 it has grown from a community of 5000 people to a city of 65,000. The local residents will quote a much higher figure, but the Municipality of Mexicali covers the entire valley, which is not the way we estimate population in the United States.

We remained overnight in Calexico—where the *Desert Magazine* idea was born in the early '30s when I was publishing the *Calexico Chronicle*. The next morning I visited the customs



Colorado River ferry near San Luis, being operated until highway bridge can be replaced.

office and the chamber of commerce to obtain the latest information for those readers who sooner or later will be taking fishing or sight-seeing trips to the Gulf of California at San Felipe 140 miles to the south.

The cost of Mexican fishing licenses is as follows: 3 days 75c, 30 days \$1.00, 3 months \$2.00, 1 year \$3.00. These licenses may be obtained from Mexicali officials at the international gate, or in advance by writing to International Sister Cities Tourist Club, Box 112, Calexico. The Club charges a service fee of 10 cents for each license.

For a stay of less than 72 hours no visa or tourist permit is required. For a more extended period, up to six months, the Mexican consul in Calexico or San Diego or elsewhere will issue a visa for \$5.00. Each person is allowed to bring back not more than 50 pounds or one fish if the weight is above that limit. Fish in excess of this quantity are subject to Mexican export duty.

Fresh water fish may be caught in the Hardy River at El Mayor, or boats are available for deep sea fishing at San Felipe. There is no closed season except on *totuava* (deep sea bass) which may not be caught from March 20 to April 30.

For a party of six persons a boat may be chartered for \$50 a day. Smaller boats also are available at varying rates, or a day's fishing may be arranged on one of the commercial boats. Accommodations are available at both El Mayor and San Felipe. However, it is good insurance to have bedrolls in the back of the car.

The business streets in Mexicali, as in Tijuana, are lined with curio stores, although, unlike Tijuana, tourist services are not the major industry here. The business center of a half million acres of land equal to the most fertile in the United States—the delta of the Colorado River—Mexicali is mainly an agricultural community.

Continuing our journey along the paved road at mid-morning we soon passed the cotton gins and cottonseed oil mills on the outskirts of Mexicali and again were in a land of cotton, alfalfa and grain ranches.

At seven miles we came to the junction where the San Felipe road swings off toward the Gulf of California to the south. This is now a popular road for American sportsmen, many of whom carry their own boats on trailers or racked on top of their cars.

We passed through the little adobe settlements of Packard, Polvara, Cucupa, Hechicera, Bataques and Santa Rosa. Beyond Bataques a dirt road takes off on the left to the port of Algodones. The American port is Andrade. We preferred to stay on the paving and continue to the port of San Luis.

Our road here is not far from the historic route blazed by Juan Bautista de Anza and his first caravan of California settlers 178 years ago. Later came Gen. Kearny with his Army of the West and the Mormon Battalion, sent to bring the California territory into the federal union. At a still later date, but for a brief period only, the Butterfield stage coaches rattled along this trail toward San Diego and Los Angeles.

Late in the 19th century Harry Chandler of the Los Angeles Times, and a group of associates in Southern California, bought approximately a million acres of this undeveloped delta land and began bringing it under cultivation. Millions were spent in clearing mesquite, leveling dunes and building irrigation canals. Cotton gins were brought in and the first cottonseed oil mill constructed.

Chandler had the vision to see the possibilities of this great fertile valley in Mexico, but from what I have been able to learn it was never a highly profitable venture. In the 1920s and 1930s, when the Agrarian movement gained momentum in Mexico, settlers came from the interior and took over approximately 250,000 acres of the improved land, under the sponsorship of the Agrarian Reform Movement.

Mexico City, desirous of effecting an amicable settlement with the American owners, subsequently arranged for the payment of indemnities through the United States-Mexican Mixed Claims Commission and eventually acquired the remaining property. The total reported recoveries amount to somewhat less than the cost of the original improvements.

The highway led us to the banks of the Colorado River at a point a few miles downstream from where the disastrous break-through in 1905 flooded Imperial Valley lands and formed the present Salton Sea. Today, Hoover and six other dams in the lower Colorado above here give assurance that such a flood disaster will never occur again. By the time it reaches Mexico, the Colorado is now a completely

tamed stream and we saw only a sluggish channel of clear water scarcely 75 yards wide.

When the road was paved from Mexicali to San Luis on the Sonora side of the river, a pile bridge was constructed. Within two months the bridge went out. The engineers probably had to do a lot of explaining, for the river at this point presents no serious engineering problems. Materials are now being brought in for a new bridge.

In the meantime a crude current-driven ferry boat has been installed. There were waiting lines on both sides of the stream when we arrived, for the flatboat takes its own time to make the crossing and even with the help of boatmen wielding long poles it was a tedious trip. The ferry has a capacity of six cars, but only four were taken across at a time. In order to shove off it was necessary that all the cars move as far forward as possible, thus raising the stern to a floating level. Then in mid-stream we all backed our cars to the other end so the prow would float high enough to reach the landing. There were no guard rails on the boat, and Mexicans stood by with wheel-blocks to be tossed under the car if a driver become jittery and was in danger of going overboard. It is all a gay adventure for the Mexican boatmen, and not a serious hazard to drivers who keep their nervous systems under good control.

The ferry charge is five pesos a car. With the current value of pesos at 8.65 for a dollar, it amounted roughly to 60 cents. We found all along the border that American money is no less acceptable than pesos.

Two miles beyond the ferry our border journey ended at San Luis. This sleepy little Mexican community is at the end of the paved road, although I was told that plans have been made for extending it east to Nogales. San Luis is on the Arizona border, at the southern end of Yuma Valley, and a paved road extends north through Gadsden and Somerton to Highway 80 at Yuma.

To complete our tour of all the California border ports we recrossed the Colorado River going west on Highway 80, and then, on the California side of the stream, took a gravel road south two miles to the Andrade-Algodones port of entry.

From Algodones it is a short but rough motor ride out to the new Morelos Dam, recently constructed by the Mexican government to divert water for the great irrigation system in Baja California. Before the completion of this dam the Mexican system was served through Rockwood heading on the American side.

The old Rockwood gate, named for the engineer who is credited with having saved Imperial Valley from complete inundation when the Colorado broke through in 1905, is now an abandoned structure. The Americans ceased using it in the 1930s when the All-American canal was built.

We had spent an easy day and a half motoring the 165 miles from Tijuana

to San Luis—had been treated courteously by Mexican officials and civilians all along the line. They are a warm-hearted people, the Mexicans, and somehow seem to remain well-fed and happy without the push and hurry of their American neighbors. It is good to know that kind of people—and occasionally, at least, to accept and enjoy their tempo of life.

Desert Quiz

There's no law against guessing in this contest. So if this is your lucky day you may get a good score even if you do not know much about the Great American Desert. But in any event you'll learn something by taking this Quiz. Twelve to 14 is a fair score, 15 to 17 is good, 18 or over is super-good. The answers are on page 23.

- 1—A rattlesnake has—One fang in its lower jaw. Two fangs in its lower jaw. Two fangs in its upper jaw. Two fangs each in both jaws.
- 2—According to the most generally accepted version, Pegleg Smith's lost hill of the gold nuggets was located in—The Colorado desert of Southern California. The Mojave desert. Death Valley. Southern Arizona.
- 3—The English translation of Canyon del Muerto is—Canyon of the Rocks. Canyon of the Dead. Canyon of the Hermit. Canyon of the Ancients.
- 4—Smoke trees generally are found—On rocky hillsides. Around desert waterholes. In dry arroyos. In salty marshes.
- 5—Jojoba is the name of a desert lizard. Rodent. Indian dance. Shrub.
- 6—Meteorites are found—Only around volcanic craters. Deep in underground mines. In sandstone formations. Almost anywhere.
- 7—Billy the Kid was involved in—The Lincoln County War. The Mountain Meadows Massacre. The siege of the Alamo. The capture of Geronimo.
- 8—Lee's Ferry was at one time a crossing on the—Rio Grande. Humboldt River. Gila River. Colorado River.
- 9—The monument of Hadji Ali (Hi Jolly) the camel driver is located at—Prescott, Arizona. Wickenburg, Arizona. Quartzsite, Arizona. Tucson, Arizona.
- 10—Laguna Indian Pueblo is located in—Arizona. New Mexico. Utah. Nevada.
- 11—The Indians who obtained food and beverage from the Saguaro cactus were—The Papagos. The Hopis. The Paiutes. The Zunis.
- 12—The Great White Throne is in — Capitol Reef National Monument. Nevada's Valley of Fire. White Sands National Monument. Zion National Park.
- 13—The padre best known in connection with Capt. Juan Bautista de Anza's California expedition in 1775-76 is — Father Kino. Father Font. Father Escalante. Father Gomez.
- 14—The U. S. Bureau of Indian Affairs is under the jurisdiction of the Secretary of Interior. Secretary of Welfare and Education. Secretary of State. Secretary of Commerce.
- 15—Butch Cassidy was a—Famous stage driver. Notorious outlaw. Virginia City gambler. Mountain Man.
- 16—Most northerly of the following desert cities is—Albuquerque. Phoenix. Palm Springs. Las Vegas, Nevada.
- 17—Quicksilver comes from—Cinnabar. Fluorite. Quartz. Feldspar.
- 18—If you were at Death Valley's Furnace Creek Inn, the sun would go down behind the — Wasatch Mountains. Funeral Mountains. San Geronio Mountains. Panamint Mountains.
- 19—The Desert Rat Scrap Book is edited by—Oren Arnold. Jerry Laudermilk. Tony Richardson. Harry Oliver.
- 20—Roosevelt Dam is in the — Gila River. Colorado River. Salt River. Rio Grande.



Belmont as it appears today.

Silver Strike at Belmont...

In the 1860s when silver assaying as high as \$10,000 a ton was discovered in the Toquima Mountains in Nevada the hills "became black with prospectors" and within a few months a tent and shack town of 6000 persons sprang up like a mirage on the desert. Here is the story of Belmont camp as it was—and as Nell Murbarger found it today.

By NELL MURBARGER
Photographs by the author
Map by Norton Allen

BORDERED BY sage and juniper and space without end, a long lonely road leads northerly from Tonopah, Nevada. In all its length of 150 miles, that road serves but a scant dozen persons, and its only town is the bleaching skeleton of Belmont—once the unchallenged queen of Southern Nevada mining camps.

To have known Belmont during her opulent past was not my good fortune, as she had flowered and faded and fallen to rubble long years before I was born. But, even in her ruin, she is a pleasant place—especially to an inveterate dreamer of dreams — and whenever I head my car out that lonely way it is with the good feeling of going home.

Time, however, has a bad habit of slipping through our fingers; and when I left Tonopah for Belmont, one day last June, nearly two years had passed since I had visited the old town.

All the way through dusty Ralston Valley I was apprehensive. How much change would there be at Belmont? How many of the old buildings would have collapsed; how many of the old timers have died?

As I neared the head of the valley and familiar landmarks came into view, I was reassured. There was the tumbled chaos of stone and twisted iron where the big wooden mill once had stood.

There was the tall brick chimney, still pointing skyward like the finger of doom; and the cemetery, where so many of Belmont's stalwarts lie sleeping.

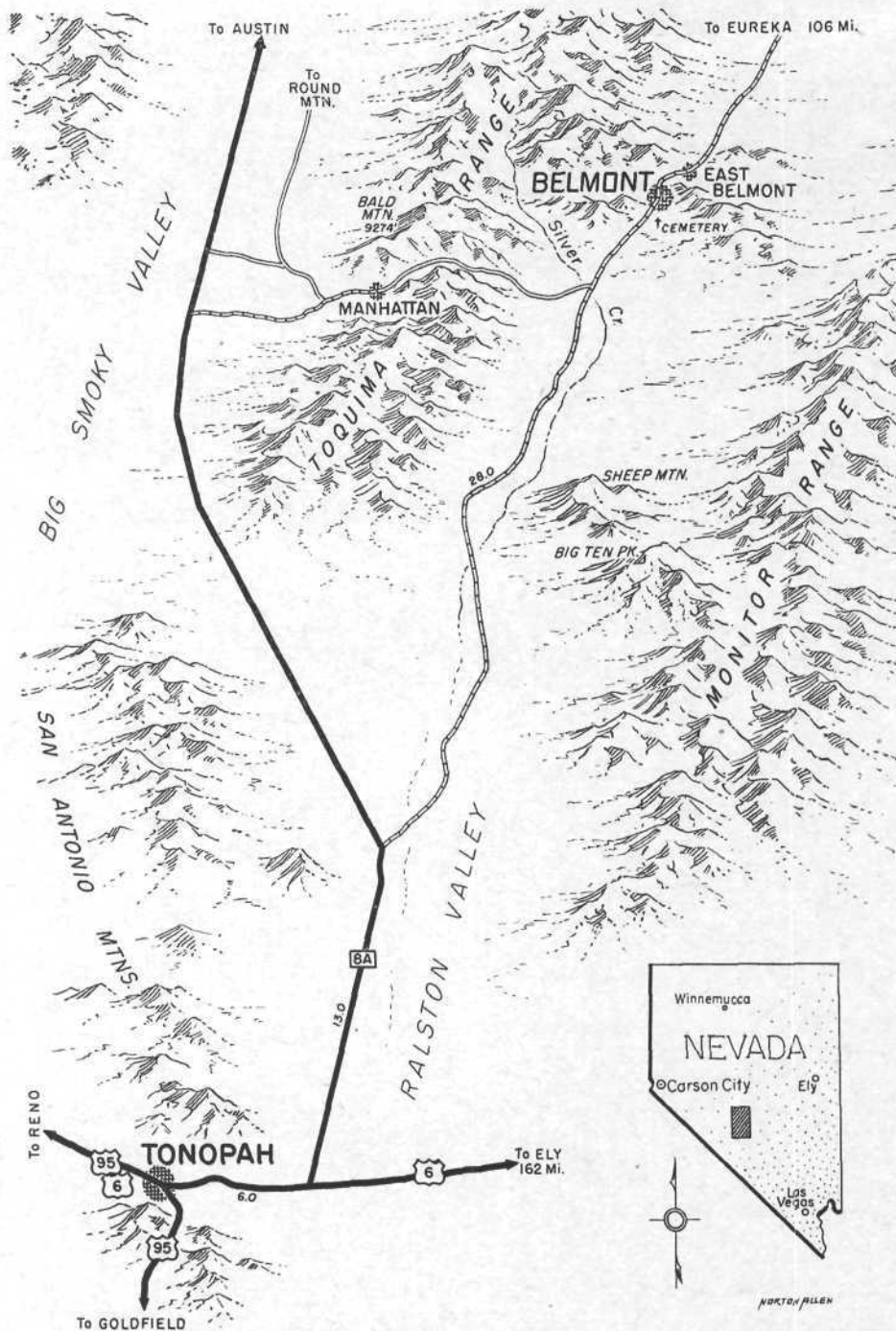
Another half a mile and I was entering the outlying fringe of dwellings—once the sporting district—and on the hillside to the rear I could see that a few tiny stone cabins still marked the one-time site of Chinatown.

Glancing across the ravine, to the left, I was relieved to see that the old Nye county courthouse still stood; still as square and unadorned as a three-story bank vault, still as indomitable as the Bank of England.

All that is left of the 80-stamp ore mill.



Driving on to the head of the street, I halted my car at the front door of a big stone-masonry building, which originally served as executive offices of the Combination Milling company.



After having been built at a reported cost of \$20,000, the immense structure was sold eventually for fifty dollars back taxes. As long back as I can remember, it had been occupied by Jim Hughes and his Indian housekeeper, Sarah.

My limited abilities as a linguist have never been quite equal to Sarah's mother tongue, which seems to be a mixture of Nevadan, Mexican, and Paiute. The best I can do is to follow the general trend of her news. On this occasion all her news seemed to be bad.

"Jeemy"—Jim Hughes—she said, had died in the hospital at Tonopah. "Aunt Kit" Anderson, who had been born at Belmont almost 80 years ago

and had told me many a story of the early days there, had died in March; and the same week they had buried Aunt Kit, they also had buried Elizabeth Goldbach, another of the oldest old-timers.

When I asked Sarah if this meant that she was the town's last surviving inhabitant, she said no, that Mrs. Goldbach's daughter, Rose Walter, and her husband, Jack, were again living there. They had gone to Manhattan that day for their mail, she said, and would not be back until late.

I had heard of Rose Walter, but had never met her. I seemed to recall that she had been born on a ranch a few miles out of town and had known the old camp during its later days. As

childhood impressions are more enduring than those of later life, it seemed possible that Mrs. Walter might recall some facets of local history which my other mentors had overlooked. I decided to await her return.

Thanking Sarah I headed my car back down the street. Driving slowly and scanning the old buildings, I mentally catalogued the ravages of Time.

At the Cosmopolitan Music Hall, where the child artist, Fay Templeton, had played to applauding throngs, I could see that the second floor balcony had fallen, and the roof seemed to sag a little more than I had remembered. Ernst & Esser's big brick-faced mercantile, which had stocked everything from Paris perfume to hob-nailed boots, was the same hollow-eyed roofless ruin it had been for 20 years past. The old false-fronted jewelry store, the assay office, the several cafes—there seemed little change in any of them; and, for this, I was thankful.

Circling to the right near the old Chinese restaurant, I eased my car across the rocky ravine and pulled up the short, steep rise, to the front yard of the courthouse. For two generations this yard has served as a campsite for roving prospectors and Indians, and assorted wayfarers—like myself.

The sun was still a little too high for starting supper, and I was glad for the opportunity to prowls once again through this fine old building.

Examining these rugged walls, still beautifully true and sound after 80 years of buffeting by the weather, and the indignities suffered during half a century of abandonment, it was almost inconceivable that every brick employed in that construction, every pound of cement used in concrete and mortar and plaster, had been fired in Belmont kilns; that every stone in that massive foundation, had been hewn from the hard heart of the Toquimas. Only the joists and roof timbers, the door hardware and the glass windows, had been freighted from the world outside.

Climbing the front steps of the building, I looked in upon a scene of devastation. Plaster, fallen from the ceiling, formed a white carpet upon the floor; corners were banked with rat litter and debris; and deep over everything, lay the desert dust of 50 years.

Picking my way along the ground-floor corridor, I climbed the creaking stairway to the second floor, and still another flight of stairs to the building's huge, square cupola. There, eight tall windows afford an unobstructed view of desolation unlimited.

Like a movie set of a bomb-de-
stroyed city, rise the jagged fangs of
broken rock buildings — foundations
without walls, walls without roofs,
chimneys without smoke. Beyond the
last fallen wall and caving cellar lie
the abandoned mine dumps, and aban-
doned shafts, and abandoned mills—
and it almost seemed as if I could see
the abandoned dreams. But nowhere
in all that expanse could I glimpse one
living, breathing creature; neither man,
nor dog, nor horse, nor burro.

That any place so devoid of life
could have pulsed with the turbulent
vitality of early Belmont was hard to
believe. Of this town's birth and de-
velopment I had been told, many
times. And now, as I stood in the old
cupola, gazing through its glassless
windows at that lonely scene of ruin
and rubble, those stories came flood-
ing back to mind, like sand pouring
through an endless hourglass.

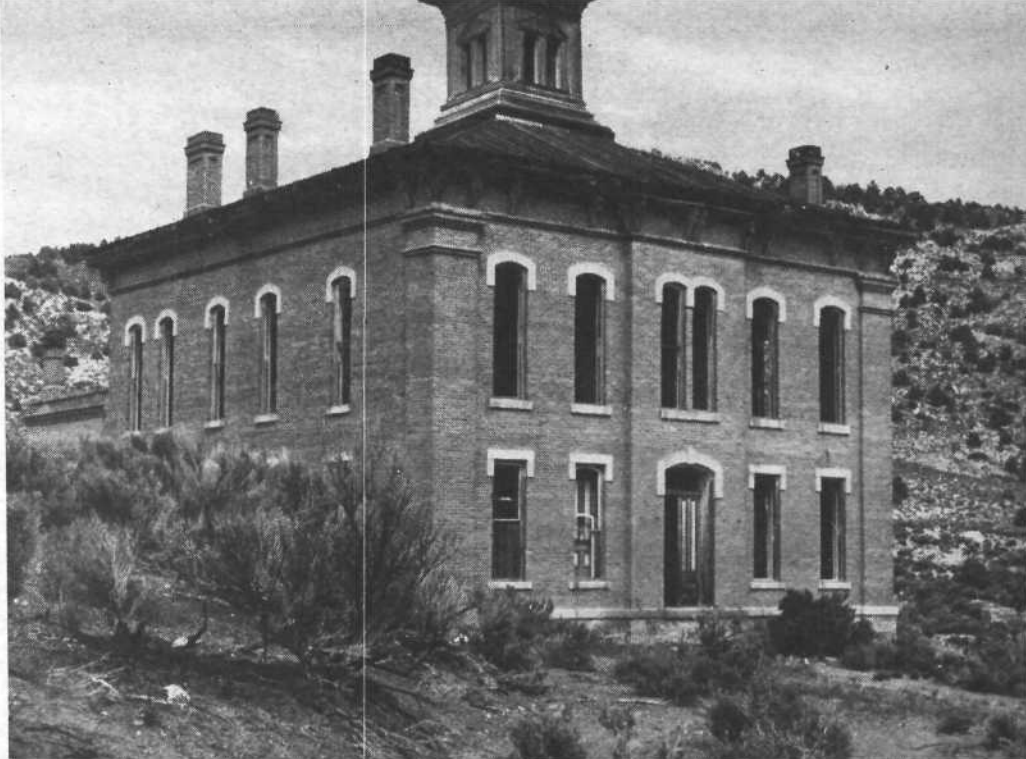
The early 1860s had been momen-
tous, fabulous times, in Nevada Terri-
tory. Sparked by that history-making
discovery on Sun Mountain, prospec-
tors had fanned out over the land in
a frenzied search for a second Com-
stock. Even though no second Com-
stock was ever found, out of that
hopeful hegira had come ore discov-
eries which resulted in the founding of
many great mining camps — Austin,
Eureka, Hamilton, Pioche. Among
the less important camps founded had
been Ione, which soon came to func-
tion as the first seat of Nye county.

While mining circles were still dis-
cussing the potential future of that
place, an even more auspicious strike
had been made on the east slope of
the Toquimas, 50 airline miles to the
east.

Like a moth emerging from its
chrysalis, the new camp of Belmont
had developed.

One day there had been a few
ragged prospectors' tents spotted over
the slope, a few burros grazing along
the run-off from a spring. The next
day, in a manner of speaking, there
had been 6000 boomers milling over
that same slope! Freight teams and
heavy wagons were churning the dust
of newly-plotted streets. Claims were
being staked right and left. Shafts
were being sunk, tunnels driven. Al-
most around the clock the juniper-
grown hills echoed to sounds of pound-
ing and sawing and quarrying. Tents
were replaced by houses of log and
stone, business structures rose—and
before she was two years old, Belmont
was casting envious eyes at the Nye
county seat.

Early in 1867, over the vigorous
and bitter protest of Ione, Nevada's
State legislature acceded to Belmont's



Above—Once the seat of Nye County, a courthouse was built of brick and lime burned at local kilns.

Below—Many famous players of 80 years ago played at the old Cosmopolitan Music Hall.

demands that the county's seat of
government be transferred to that
place. To Belmont, the harvesting of
this luscious plum was regarded as a
ticket to success and immortality.

The *Silver Bend Reporter*, a weekly
newspaper, was founded by Oscar L.
C. Fairchild & Co., and in Vol. 1, No.
1 — issued March 30, 1867 — this
fledgling news medium predicted that

within a year Belmont would have a
population of 10,000 persons.

"Col. Buel's mill has extracted
\$100,000 of silver bullion from 1000
tons of Highbridge ore, all taken from
within 25 feet of the surface; and there
are 80 stamps on the road for the
Combination and Child and Canfield
companies, which will make our bul-
lion yield something over \$200,000

per month before the summer is over. The hills," exulted *The Reporter*, "are beginning to blacken with prospectors."

Before the end of April, in that year of 1867, *The Reporter* had advised its subscribers that a sample of ore from the Combination company's claim, the Highbridge, had assayed \$10,247.79 a ton in silver. Colonel Buel had left for Paris with a cabinet of Nevada silver to show at the International Exposition. Clay for brick manufacturing had been discovered in abundance four miles west of town, and three large brick kilns were to be built immediately. Crowell and Myers' sawmill was producing 4000 feet of lumber every 10 hours: H. P. Stimler had opened the Belmont News Depot, and, according to his announcement, would stock "*The Sacramento Union*, *Territorial Enterprise*, *Reese River Reveille*, cigars and stationery." Other new arrivals on the business front had included an oyster house, bakery, two physicians, a drug store, fruit store, and watch-repairing shop.

An editorial deplored the fact that there had never been a public school in Nye county, and urged that Belmont be the first county town publicly to recognize the importance of education.

And just as proof that even in 1867 there were editors dissatisfied with the administration of government, *The Reporter* had proposed a toast: "Here's to our governor. He came in with very little opposition; he goes out with none at all."

This, then, was the frontier boom camp to which the county seat of government was transferred in May, 1867. As Nye's taxpayers had but recently completed the erection of a courthouse at Ione, they were not in a financial frame of mind to begin immediately the construction of a new courthouse at Belmont. County offices, as a consequence, were temporarily housed in various store buildings leased for that purpose.

Not until seven years later was the contract awarded for erection of a massive brick courthouse that would do credit to what was then, as now, one of the three largest counties in the United States.

Work of grading got under way in the late summer of 1874, and in September of that year, Belmont *Courier* announced that the joist timbers were on their way from Alpha (a station on the now defunct Eureka & Palisades Railroad) and that J. D. Benham, the contractor, had a large force of workmen employed making brick and hauling rock. "About 60,000 brick are already molded and laid up in the kiln,

and a kiln of lime has been burned," reported the *Courier*.

With its completion the new courthouse had been hailed as one of the finest public buildings in the state.

And now, to look out over this scene of desolation and ruin was to realize that all this had been a long while ago. Time had been moving forward—not only the years, but the time of that afternoon. The sun had slipped down the western sky until it was barely clearing the mountaintop, and long dark shadows were already stealing across the town and up toward my campsite at the front door of the old courthouse. A definite chill had crept into the air, for at 7000 feet above sea level, in Nevada, summer is little more than a quick breath.

Retracing my way down the stairs, I began preparations for the night. Traveling alone on the desert has the effect of paring life to its barest essentials, and my camps are never elaborate affairs.

Shoveling a shallow pit in the lee of my car, I built a small open fire and cooked my supper of Campbell's soup and boiled eggs and tea—using the concrete threshold of the courthouse as a kitchen cabinet, and later, as a dining table. After supper I unrolled my sleeping bag on the ground, and in the back seat of the car typed several pages of notes.

By the time I had finished, a thin new moon was swinging overhead and glinting ghostily from the smooth brick face of the old building. In all that sprawling town, the only man-made light I could see was a faint flicker in the kitchen window at Indian Sarah's. A few bats came out to swoop and dive in pursuit of night insects, and it seemed like a good time to call it a day.

Dawn found every whisker of grass upholstered in hoar frost, and the top portion of my sleeping bag, where moisture from my breath had condensed, was stiff and white with icy crystals. The thermometer registered 28 degrees Fahrenheit.

As soon as the sun had topped the hill to the east and softened the cold, I prepared and ate breakfast, took care of my simple camp chores, and then went out to prowl over the hillside in search of possible souvenirs.

Presence of a pick-up truck in the yard of the Walter home showed that they had returned sometime during the night. Before too long, a gray plume of smoke began curling from their chimney. After what seemed a decent interval, I presented myself at their door.

Even before I had time to introduce myself, Jack and Rose Walter

had pulled me into their big clean kitchen, fragrant with pine wood and bursting with that rare good warmth that comes only from a wood-burning range. Despite my protests that I had already breakfasted, I was pushed into a chair at the kitchen table, and a couple of minutes later was eating my way into a stack of piping hot wheat-cakes layered with homemade butter and brown sugar syrup, and trimmed with ham and eggs.

As I ate we talked of Belmont, and her fast-thinning ranks of old timers.

Rose said that her mother, the late Mrs. Goldbach, had come to Belmont from New York in 1880, at the age of 19 years. Soon after her arrival here, she had met Mr. Goldbach and their marriage had taken place in 1883 at the Belmont home of George Ernst, pioneer surveyor of Nye county and grandfather of Nevada's present governor, Charles H. Russell.

Following their marriage, the Goldbachs had settled on a ranch on Barley Creek, a few miles north of town, and there Rose had been born.

"As a little tot, I thought coming to Belmont was the most exciting experience in the world," said Rose. "It was the largest town I had ever seen, and even Wanamakers couldn't have looked any grander to me than Ernst & Esser's store! It seemed to me I could look for days and not see even half of the wonderful things on their shelves."

Throughout her grade school days she had attended the little adobe schoolhouse which now stands in ruin on the hillside across from the Walter home. I remarked that several years before, while walking through the sagebrush east of the schoolhouse, I had found the remains of an old organ.

"It was a melodeon," corrected Rose. "The sweetest little melodeon anyone ever saw! Long after the school had been discontinued here and the building abandoned, its interior remained completely furnished, just as it had been at the last session of school. In time, of course, the roof began to leak, the adobe walls crumbled, and all the furnishings were eventually destroyed by the weather."

Among Belmont relics rescued by the Walters are a couple of old ledgers used by the general store in 1876. Leafing through their stiff pages, now growing yellow and brittle at the edges, we found prices far different than those of today. Flour was \$8.50 per 100 pounds; cheese, 30 cents a pound, sugar 25 cents. Coal oil was quoted at \$1.50 a gallon, tomatoes 50 cents a can, and white fish was charged to one of the miners' boarding houses at

\$36 a barrel. When ladies of that day bought yardage for a new dress, they had their choice of several materials with prices ranging from calico at 12 cents a yard, to velvet at a dollar a yard.

Another strange relic owned by the Walters is a pair of handsomely tooled millstones, the two weighing nearly a quarter of a ton. While the stones are of a type used in early-day flour mills, the Walters found no other evidence of a mill at the point where the stones were located.

Later in the day, Rose and I drove up to East Belmont, at one time quite a town in its own right. Just beyond the crest of the divide which separates Ralston and Monitor valleys, we halted to explore the ruins of the great Combination mill, built in the late 1860s at the reported cost of \$225,000. In its issue of August 24, 1867, the *Silver Bend Reporter* announced that the 250,000 pound cargo of machinery necessary to the operation of this 40-stamp reduction works, was en route from San Francisco in huge freight wagons drawn by 14 heavy teams of 10 mules each. Freight costs from San Francisco to Belmont, said the *Reporter*, would involve more than \$17,000.

Still intact, near the center of the mill, is the treasure room — a large brick-lined vault, with a ponderous steel door. As rapidly as the silver was cast into bars, the bullion was stored in this place until such time as it might be shipped to the mint.

From the Combination mill we turned off on two dim wheel tracks which led to the east along the shoulder of the ravine. All this area is strewn with the remains of stone buildings and foundations.

As the car coasted slowly along the dry slope, Rose kept peering to the left and eventually directed me to halt. A short walk brought us to the underground kiln where limestone had been burned for the plaster and cement used in construction of the courthouse. The kiln was a simple arrangement, almost like a cistern but with the addition of upper and lower vents for drafts.

From the kiln we continued on to the Monitor Belmont flotation mill. Built during Belmont's most recent attempted revival, in 1915, this 10-stamp mill operated for a couple of years on tailings, before closing. The operation was not marked by any great success. Like its predecessors it also is falling to ruin.

Throughout that evening and most of the next day I remained with the Walters. Almost every waking moment of that time we talked of this old camp



Rose Walter, born not far from Belmont, with a pair of mill stones which have survived the years.

and those feverish days in which Judge Colt was too frequently employed as a referee.

Rose related the oft-told tale of the tragic lynching of Jack Walker and Charles McIntyre in 1874. She showed me the brick building in which these unfortunates had met their doom, and she guided me to the site of their unmarked graves beneath a pinyon pine at the lower edge of town.

With her husband acting as prompter, her stories ran the gamut of stage hold-ups and buried treasure and jail breaks, and there were gayer anecdotes of celebrations and dances and the excitement that prevailed whenever a long train of freight wagons would arrive with merchandise for Belmont's stores.

After the demonetizing of silver, said Rose, Belmont was never the same prosperous place as before, and by the end of the 19th century, it was plain that her days as an active camp were drawing to a close.

One morning in May, 1900, James L. Butler, Monitor Valley rancher and district attorney of Nye county, had felt the springtime urge to go prospecting. Relegating his ranch duties to his wife and his courtroom duties to a young assistant, Tasker L. Oddie (later to be governor of Nevada) Butler had headed south toward the little camp of Klondike. The night of May 18 had found him camped at Tonopah Springs. On the morning following, he had made the discovery which was to precipitate the stampede to Tonopah—one of the

greatest mining strikes in the history of Nevada.

The immediate effect of that boom on aging Belmont had been to drain away her last remaining strength so that the general election of 1903 had found her able to muster but 36 qualified electors. During the year that followed, Tonopah had succeeded in wresting from her the county seat, and with loss of her official prestige, the old camp in the Toquimas had given one last weary sigh and laid down her arms.

And now, even that last sigh is half a century in the past.

Every man who labored in the old Combination mill, every mucker who toiled in the Highbridge mine, has vanished like the winds of yesterday. Judges, juries, attorneys, litigants, all those who thronged the old courtroom in search of justice or redress have long been forgotten. But the old courthouse which listened so briefly to man's trials and tribulations, still stands four-square to the world—as rugged as the pioneers who built it; as defiant of time as the Nevada clay from which it was made.

Heading my car back toward Tonopah in the late afternoon of the third day, I was thankful that Belmont had not changed too greatly since my last previous visit. I was thankful that even in her ruin, she is still a pleasant place where a dreamer may sit in the warm sunshine, and, in fancy, may recapture some fragment of the glory that was hers.



JOSHUA TREES

By MARY E. BURUM
Dinuba, California

Dumb guardians of desert lands,
With lifted arms and speaking hands,
What greetings do you signal each to each?
Warnings of wind, or desert shower?
Fraternal salutation?
Or sly derision of the antics
Of the human population?

DOCUMENTARY

By GORDON LECLAIRE
Montreal, Quebec

Daylong we drove
Through sunburst land,
Where shimmering whorls
Of agate sand
Rippled a rainbowed
Signature,
As if some hand,
Unseen but sure,
Limned on the desert's
Witchery
The autograph
Of Eternity.

RIDING THE TRAILS

By GRACE STILLMAN MINCK
Anacortes, Washington

When I am riding desert trails
I feel that somehow I
Am really riding on and on
For entrance in the sky;
And some day, maybe, as I go
With eyes caught on a star,
I'll hear a gate close just behind
And see I've gone so far
All old horizons are erased
Forever, granting me
The right to wander heavenly trails
A sweet eternity.

THE DESERT IS A HAUNTING PLACE

By MRS. GRACE B. WILSON
Kirtland, New Mexico

The desert is a haunting place for shades
Of things as ancient as the earth. The moon
In whiteness lights the way for phantom
raids
Of warriors. Background winds intone a
tune
Of mocking mystery. The high, cool stars
Cast only random flickerings of light,
Pale blue, or yellow, or the red of Mars,
Where long-departed spirits walk by night.

TOMBSTONE REVERIE

By ANNE GORHAM BREWSTER
Tombstone, Arizona

A tranquil town here drowns in the sun,
Atop its mesa stretching lazy length.
The dreaming desert and the silent hills
Enfold it softly with their gentle strength
And ageless mountains guard eternally.
The turbulence of greed and hate for-
sworn
This quiet town rests in serenity,
Ungodliness renounced and soul reborn.

Vision

By TANYA SOUTH

The portal opens wider yet.
I stand upon the threshold waiting,
And all the future of my Fate
Is on this light debating.
For as we see and comprehend,
Thus do we Life amend.

Old Taos

By GASTON BURRIDGE
Downey, California

Dark mountains leap against a shimmering
sky
Where strips of cloud-lace pattern weave
hard blue
And lapis hazes web their magic flue
Below. Old Taos stands five stories high
In massed adobe strength—a perfect tie
Between the dome and earth. This structure
grew
From love and want of home—by pieces—
through
Long years, until beneath it, ages lie.

When man builds useful things of simple
source
Which stand the acid breath of year's deep
flood
Their heights become his greatest monument
Because its roots tap Nature's living force.
Old Taos has this sort of strength. The
blood
Of time has cooled and now it sleeps content.

CALIFORNIA RIVER

By MARY ALDEN CAMPBELL
Long Beach, California

This dry rocky waste and old sun-beaten
gravel?
This glare of hot sand and no water what-
ever?
Who believes it a river?

And the valley said, "I.
It made me and keeps me;
My garden, my orchard, I owe to its
favor:
I believe in the river."

And the rabbit said, "I.
This bank for my burrow
Has weed for my forage and brush for
my cover:
I believe in the river."

And the alder said, "I.
Its underground channel
Is drink for my root, my branch and
leaf saver:
I believe in the river."

And the rancher said, "I.
I drained it by furrow
For life to my vineyard, my olives, my
clover:
I believe in the river."

So wait, scoffer, wait for the winter-uprising,
When a torrent roars down and the rocks
are bowled over:
You'll believe in the river!

THE OLD RANGE

By PEARL RIGGS CROUCH
Ashland, Oregon

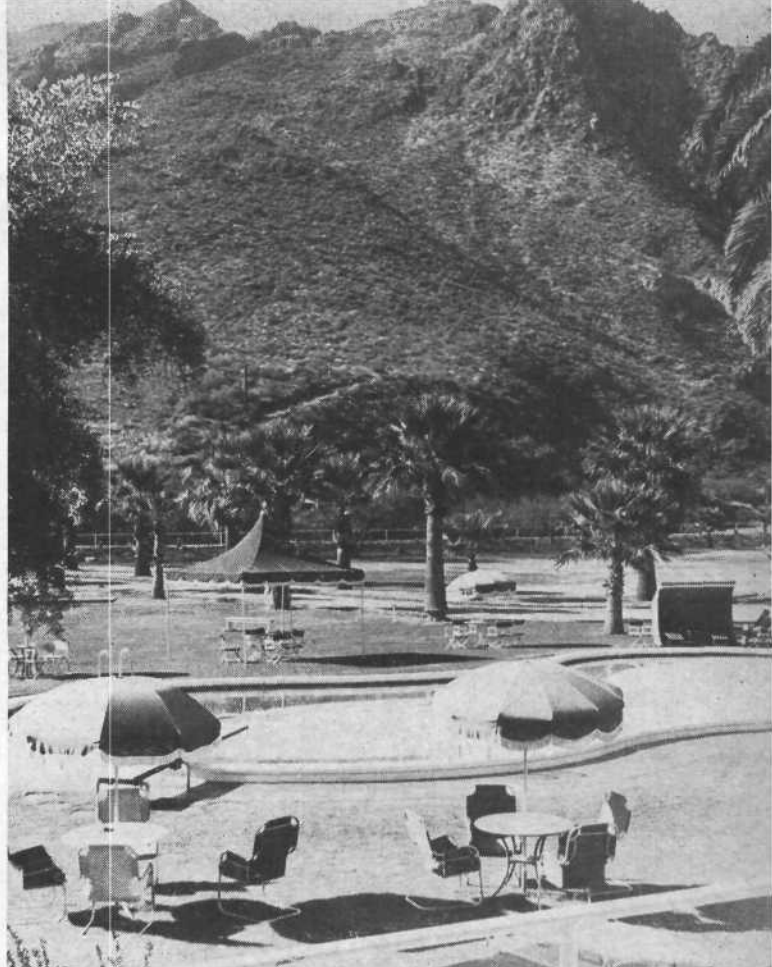
A rolling rim of earth and sky,
Far distances that lure the eye
Through vistas where an ether sea
Flows on to meet infinity.

Across the plain, a slender thread—
Mute memory of life long fled—
A trail deserted yet is left,
By many a vanished hoof deep cleft.

The voice of summer echoes low
Where faded grasses dimly blow;
And solitude, profound, supreme,
Broods like the spirit of a dream.



Monty McWilliams, Castle Hot Springs barber and gemologist who lived in the Bradshaw Mountains 28 years before he discovered the beauty of the rocks in that area.



Castle Hot Springs, Arizona, lies in the center of a fantastically prolific rock-hunting area. Agates, quartz, even crystals lie on the slopes rising directly above the hot plunges.

Gem Stones in the Bradshaws

By JAY ELLIS RANSOM
Photographs by the author
Map by Norton Allen

In a remote mountain region in south central Arizona Jay Ransom and his father found a fertile field for the rock collectors—and also they encountered some fine Arizona hospitality. Here is the story of a virgin gem area, and of the man who discovered it.

MONTY McWILLIAMS lived on the desert 28 years—and then overnight discovered that the hills and canyons and mesas around him were sprinkled with stones which, when cut and polished, contained more fascination than he thought was in the whole land.

Monty is the barber at Castle Hot Springs in Arizona, a lovely but little known spa tucked away in a deep wrinkle in Arizona's Bradshaw Mountains. It is 24 miles by a graded road that twists and climbs northeastward from Morristown, a short distance from Wickenburg.

The Castle Hot Springs barber is slightly built, but tough and wiry. Hair graying above sky blue eyes, his speech is as clipped and Scottish as his name. Impeccably dressed, it embarrasses him to have his photograph taken. Ruefully, in the morning after we'd arrived to camp out in the Bradshaws,

he told us a nutshell account of his association with gem stones.

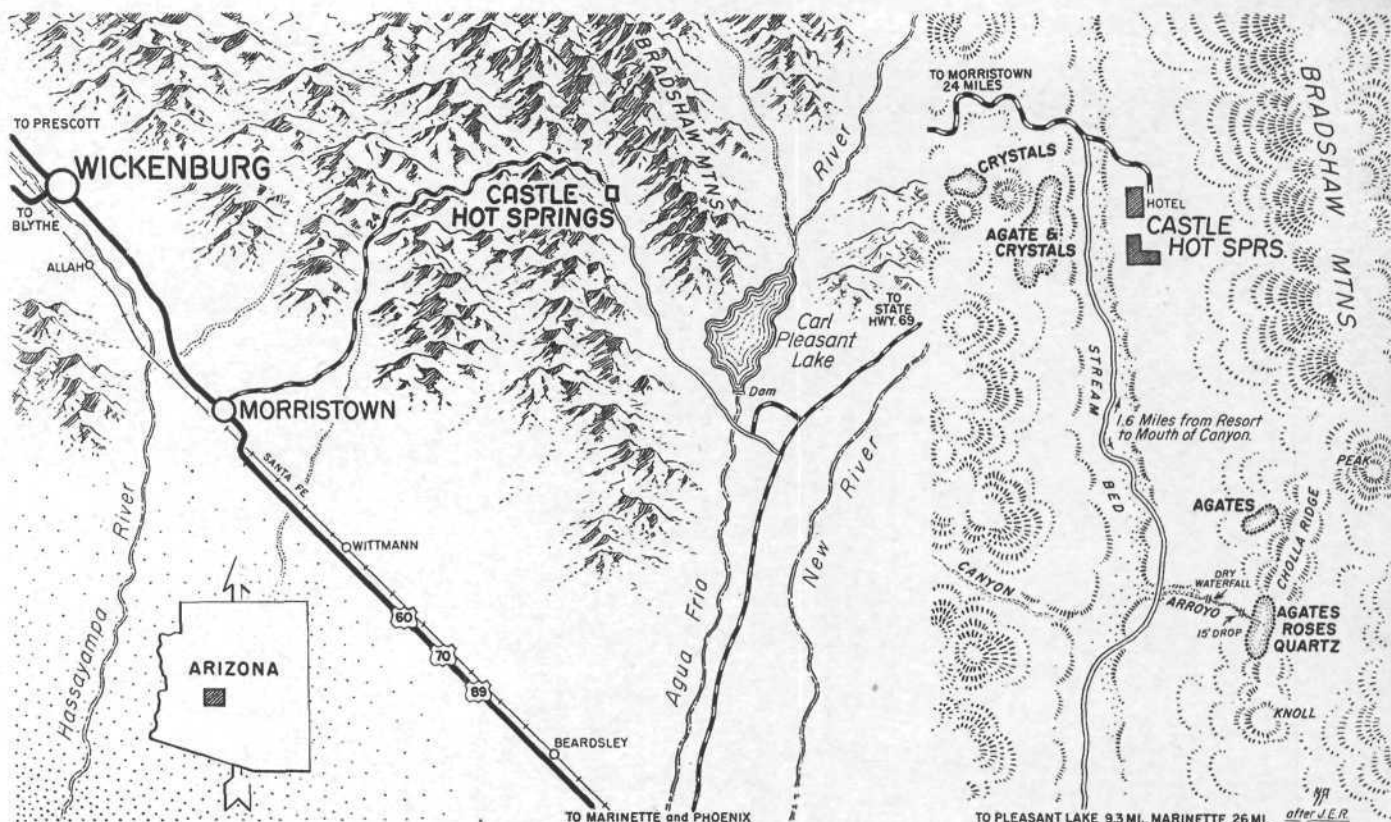
"For 28 years," he said over a sample table loaded with gemstones of every description, "I rode or hiked these mountains looking for gold, never finding it. I'd about concluded these hills were utterly worthless until a visitor taught me other things to look for — quartz rocks like agates, crystals, chalcedony roses, geodes, and so on — and overnight I found what I'd been missing all those years. Now, every time I hike out, it's a brand new experience; it's easily added ten years to my life span. I'm as eager as a kid, never knowing what I'm going to find over the next ridge."

His eyes lighting with pleasure at having a chance to talk about his new experience with rocks, he gestured to the hundreds of gleaming specimens. Picking up a magnificent water-clear crystal an inch in diameter and three

inches long, streaked with asbestos inclusions that looked like rutile, he handed it to my mineralogist father. "I've picked up dozens of crystals like this one," he said modestly, "right up there next to that peak."

He pointed across the shining green lawn of the hotel with its blue scalloped swimming pool to the ragged mountains that rise abruptly from the narrow sun-filled canyon. "Strange how all those 28 years I'd been walking over a treasure-trove of rocks — some of the most beautifully fashioned agates and crystals this side of Brazil, not to mention hundreds of Indian petroglyphs and artifacts of prehistoric and later times."

Now after two years of collecting, Monty probably knows more about the Bradshaw Mountains as far as gem stone minerals are concerned than any man living. Ransom Senior and I stared in increasing amazement as, one



by one, we identified the two-score varieties on display. I found it difficult to believe that so prolific a gem hunter's paradise—so close to one of America's most lavish American-plan hotels—could be so completely unknown to the rock hunting fraternity. The hotel itself is so remote and lost in the southern Bradshaws that many residents of Phoenix, 31 miles to the south, do not even know of its existence. Its clientele comes exclusively from areas east of Chicago. No wonder Dad and I felt an exhilarating astonishment, stumbling onto this brand new and extraordinarily extensive — if we were to believe Monty McWilliams — treasure field of gem stones.

On the table before us Monty had gathered dozens of finger size quartz crystals with asbestos and green mossy inclusions. There were water-clear crystals of many size. Gray, blue and white fortification agate came in nodules the size of my two fists. There were other agates of an amazing array of colors, some containing drusy quartz geode centers, others beautifully banded. We identified jasper in several varieties, and manganese and silver ores of great beauty. Dumortierite vied with chalcedony roses and jasp-agate. Copper bearing specimens had come from the creek bed not a hundred yards from the hotel lawn.

Around the corner from his barber shop Monty showed us his larger stuff — manganese in quartzite, metates,

and porous black lava chunks bigger than my head on which were incised the delicate figures and symbols of ancient Indian petroglyphs.

"A university professor stopped by here," Monty explained, "and he said those prehistoric tribes died out or moved away centuries before the Apaches started hiding out around the canyon waterholes. I've found scores of their camp sites." He went on to tell how the rugged Bradshaws belonged to the Apaches 70 years ago. "However much the Indians warred among themselves," he said, "they considered these hot springs a sort of common resting ground. They wouldn't war on each other as long as they stuck to these canyons." However that may be, it is a matter of record that many a fierce war party swept down onto the gold-laden Wells Fargo express stages bound from Wickenburg to the Salt River Valley. That once-fabulous mining center contributed bullion and scalps regularly through a dozen bloody years.

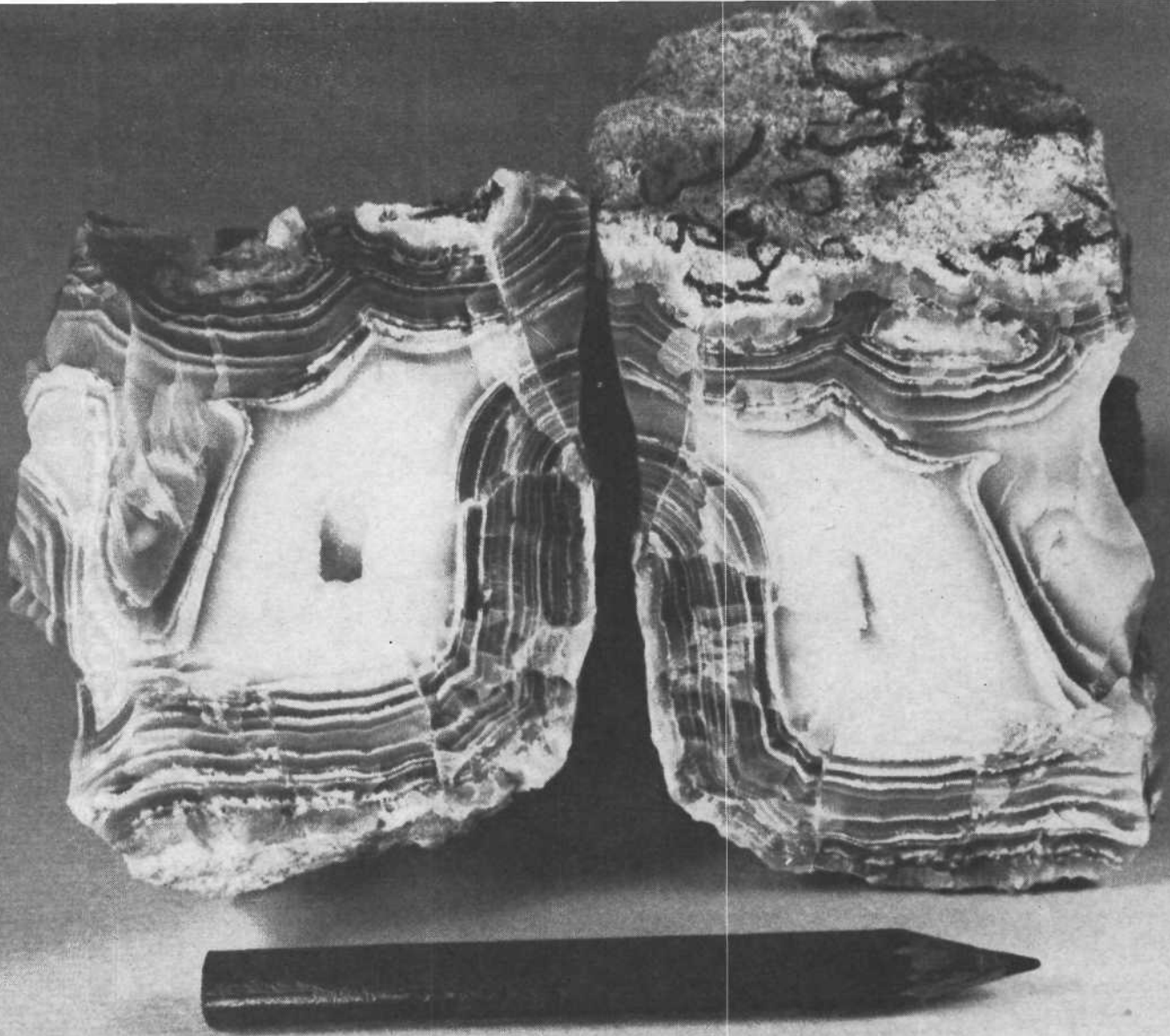
Looking out over the beautifully manicured resort grounds to where mesquite, palo verde and fragrant greasewood shared the sun along the craggy canyon walls above the stream with giant saguaros, it was easy to visualize dark, fierce-eyed bandits dividing up their loot while their women and scampering children worked and played in the background. But now, in the soft January sunshine, birds flew and sang their joyous songs.

"Not far from here," Monty said, breaking into my thoughts, "are such famous early day points of interest as Indian Mound, historic Crater Canyon, Four Tanks and Hell Gates—all names to conjure with.

I might explain here that my father and I had stumbled onto this paradise of rock hunting quite by accident, following only the vaguest of rumors that at Castle Hot Springs we would find something to surprise us. The winding, tortuous dirt road out of Morrystown discouraged us, late in the afternoon, for prospecting in likely draws at intervals along the way. We didn't find anything that looked interesting—only a little quartzite showing faint promise of gem quartz somewhere.

Then just before sunset, with shadows of saguaros long on the road, we dropped abruptly down into Castle Hot Springs, astonished in the barrenness of the desert mountains to find vistas of old palm trees, richly laden orange trees lining the entrance road to the hotel, then a broad expanse of grassy lawn with a croquet game in progress, and lastly around the scalloped tile lawn pool the lazy after dinner relaxation of the hotel guests. A half century of elegance lay over the resort with its ornate rococo work along the eaves on a level with the tops of the palms.

However, evening was deepening rapidly and, being equipped for camping out, we drove down the creek a mile to camp among palo verde trees.



Banded and fortified agate from the Castle Hot Springs area, found on the mountain slope directly across the creek from the hotel. Dark bands are blue shading to gray. Markings on top are outcrops of darker bands. Drusy quartz crystals line center geode.

The road south of the springs follows for miles down the creek bed, in and out of water, leading to widely scattered cattle and guest ranches. With the purpling shadows filling the canyon and a brilliant mauve and gold sunset flaming above the ragged peaks, we made a comfortable camp. Soon a lovely palo verde wood fire supplied coals to cook over and light to see by.

The music of clear running water over moss covered stones and through luxuriant growths of watercress filled the evening air. From above, where the remuda of horses belonging to the resort milled in the corrals or grazed along the creek came the snuffling and snorting of contented beasts.

That night, relaxing on army cots beside the glowing fire, after a dinner of canned soup, beans and meat heated in their tins, bread and jam, watercress

salad gathered from the stream, and aromatic coffee, we listened to the night birds uttering their calls in the palo verde trees.

On both sides of the creek the mountains rose sharply, and against the starry sky the giant branched saguaros stretched their sentinel arms. Here, encircled by the foothills of the Bradshaw Mountains, under wide warm skies the golden day had now become a quiet night that soothed and lifted us out of our hectic world. All about us flitted the ghosts of the past—the winking fires of wild Apaches camped along this same creek and prehistoric basketmakers long forgotten save for crude carved figures in black basalt.

We had seen many birds during the afternoon drive from Morristown, and I had the idea that a bird lover could well spend a season here. This green

oasis in the rocky Arizona desert seems to provide a haven for some of North America's most colorful and least-known species. Later I learned that amateur ornithologists have listed more than 60 species of feathered friends, including migrants north or south bound, resting and visiting.

There was the Black Phoebe that returns every winter to the hot pools, and the large Cactus Wren in from the desert to feast along the creek. And, of course, we saw dozens of streamlined Roadrunners — those strange birds who run better than they fly. All afternoon Western Meadowlarks had whirled up from the canyons, singing more brilliantly than their eastern counterparts. Before nightfall I'd noted visiting Juncos and a covey of Gambel's quail feeding not far away.



Once an Apache hideaway, the Bradshaws contain a number of rocks covered with ancient glyphs. Monty McWilliams led the author and his father to this boulder.

We were up with the dawn, and after a breakfast of bacon and eggs, flapjacks, canned fruit and coffee, we stowed everything in the car. On both sides in the slanting rays of the rising sun, the mountains seemed to yield grudgingly with sharp steep canyons opening to the back country. We elected to hunt the canyon on the east side of the road nearest us.

Here, a dry cloud-burst streambed climbed steeply by huge stairsteps and dry waterfalls. In the gravels we found a scattering of quartzite and seam agate. A quarter mile of climbing showed the defile opening out onto sunny slopes yellow-green with cholla, that treacherous cactus less than waist high which seemed forever waiting for us to make the slightest misstep to dagger us with its needled spines like quills from an angry porcupine.

Here all over the steep slope we found a covering of quartzite chips, agate and chalcedony roses. Small geodes dotted the ground, seeming to be thickest and largest under the biggest cholla plants where they were hardest to reach. The slope and the canyon walls below us were a hard, yellowish clay deposit, and it was evident that gem stuff continually weathers out of the solidified muds.

We progressed slowly, fighting cholla and circling left, always climbing. Above us a sharp peak lifted ragged basalt spines ending in sheer cliffs. Succulent barrel cactus stood every-

where, green and bristling, and on the steep slopes rising to the peak lay a covering forest of branching saguaros. Lifting into the skies beyond rose range after range of mountains, gashed with numberless canyons all of which promised excellent prospecting. And well they might.

Lying between 34 and 34½ degrees of north latitude, the Bradshaw Mountains consist mainly of granite and diorites of pre-Cambrian age intruded into Algonkian schists. On the adjoining mesas are accumulations of volcanic agglomerate of supposed Tertiary age, mantled in large part by extensive flows of basalt from 200 to 500 feet thick. In the southwest, around Castle Hot Springs the agglomerate is mantled by flows of andesite. It seems to be from the agglomerate that the bewildering variety of gem stone materials derive.

Returning, finally, to the hotel I went directly to manager Walter H. Rounsevel for permission to explore around. I found him in his office and most willing to be helpful. He directed us to see Monty McWilliams, saying with a twinkle in his gray eyes: "Monty's been collecting rocks for the last two years — quite a collection, too."

He took time out to tell me about this 55-year-old spa, explaining in matter-of-fact terms how its 60 employees—including a masseuse, a doctor, a beauty parlor, wranglers and

guides as well as the regular hotel personnel are maintained during the December to April season for the convenience of a peak season of 110 guests, nearly all of whom come annually from east of Chicago. "Nobody this side of St. Louis even knows we're here," he concluded. "Now, when you get through looking around, why not take a swim in one or both of our hot plunges. The upper one is 120 and the lower 90 degrees. I'll notify the attendants you'll be along." He reached for the phone, then smiled. "You'll be mighty hungry afterward. Lunch will be served at twelve."

If this was Arizona hospitality, it was for me. Roaming up and down those punishing mountain sides in the sunshine, even though it was mid-January, promised to be hot, dusty and tiring. Much as rock hunting seemed the definite order of the day for Dad and me, a clean relaxing swim after our exertions couldn't have been more inviting. But first, we went to meet Monty. After seeing our delight in his collection, he pressed his finest specimens upon us as gifts. "You'll get as much pleasure out of these crystals," he said happily, "as I do out of giving them away, which I've done with most of my best finds. There's always more to be found, you know."

For a half hour Monty showed us around the resort, taking time to describe various nearby gem stone areas and pointing out the most likely places for hunting across the creek, for visitors who have neither the time nor the energy to ride the ridges and canyons on horseback. In particular he designated the steep slopes immediately across the creek where a trail climbs to the flag that waves from a cairn atop the peak.

"All over those slopes you'll find banded and fortified agates," he said, pointing to examples in his collection. "And in the saddle between those two peaks I've found some of my best crystals. It's a funny thing, too, I've found a lot of Indian camps, and around every one of them have been some fine clear crystals. Seems as if the Apaches picked them up to 'make medicine' with, but I don't know."

Following Monty's directions, we crossed the creek, climbing upward beyond a broad rolling clearing which had once been part of the world's most rugged golf course. There on the sun-swept slopes, among clawing cholla, barrel cactus and tall saguaros, we found dozens of different kinds of specimen material. About 10:30, with the sun uncomfortably warm on our shoulders, we started back just in time to see Monty hastening toward us in his shirt sleeves.

"I thought I'd better show you the best Indian petroglyphs," he said, panting from the steep climb. "People often don't believe me when I tell them prehistoric Indians scrawled their carvings all over these slopes." Quickly, he led the way through heavy brush until we arrived at a huge boulder, its sunward face covered with incised designs.

"Get into the picture, Monty," I suggested. "I'll make you some copies and next time anybody doubts your story, you won't have to climb all the way up here to prove it."

He laughed, self conscious. "That's an idea." Still half reluctant, he stood beside the boulder pointing out a design on the very surface he himself was the first to discover. "There are several more," he added, pointing down the slope, "but it's pretty brushy getting to them."

Back at the springs, we hastened to the dressing rooms where friendly attendants supplied us with trunks. So hot is the non-mineralized water that a swim of 15 minutes was enough.

At the hotel, Walter Rounsevel was true to his promise of lunch. Afterwards, shaking hands with our new friends, we thanked both Rounsevel and Monty for their hospitality.

Leaving shortly by way of the rock-ribbed Jeep road south toward Marinette, I found it hard to realize that gem stones could exist in such variety and excellence in one compact area. But Monty's casual collection was proof of it.

It is my opinion that visitors, while perhaps not wishing to indulge in the white-tie-and-top-hat luxury of the resort itself, will find this region a marvelous rock hunting center. As Monty McWilliams put it: "Every draw and canyon needs exploring; I haven't begun to cover it myself, in my off hours. Sure, it's rough hiking, often hot and sticky, but you just never know what will lie around the next bend. And one thing is sure. . . . There's something worth picking up around almost every bend in the Bradshaw Mountains."

WATERED ABUNDANTLY, OCOTILLO CUTTINGS THRIVE

The ocotillo, with its numerous 10- to 20-foot long whiplike unbranched stems, is one of the most conspicuous plants of the desert when in flower. Each branch, attached in fan-shaped order to the base of a small trunk, produces large dense clusters of scarlet flowers each spring. These branches grow readily from cuttings if watered abundantly, and make decorative additions to the home desert garden.



On the mountain slopes above this hot water pool at the Castle Hot Springs resort are many varieties of gem stones.

Send Your Best Photos to Desert . . .

October is the month when those who trek over the desert in quest of unusual photographs may resume their annual pilgrimages with assurance that they will have ideal weather. If you have a picture that is exceptionally good—clear and sharp with good composition and lighting, you are invited to submit it in the Picture-of-the-Month Contest. Or, send in more than one if you like. Any desert subject is acceptable.

Entries for the October contest must be in the Desert Magazine office, Palm Desert, California, by October 20, and the winning prints will appear in the December issue. Pictures which arrive too late for one contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

Address All Entries to Photo Editor

The Desert Magazine

PALM DESERT, CALIFORNIA

LIFE ON THE DESERT

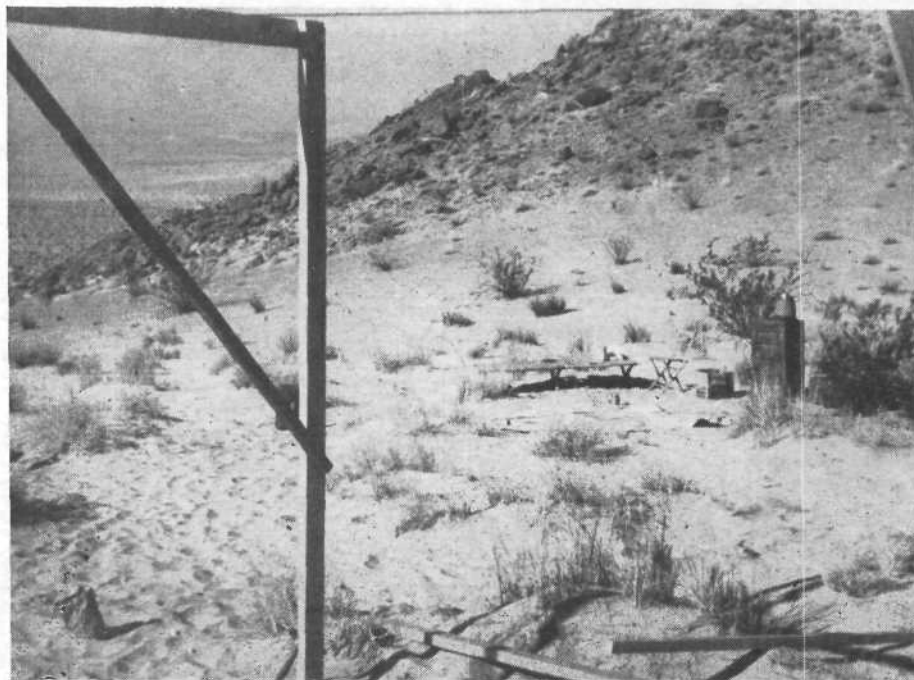
By ROBERT N. CARLILE

This jackrabbit homesteader invested hours of hard work and part of his very heart and soul in his five-acre tract near Twentynine Palms, California—only to lose it when the Government decided it needed the area for a Marine artillery range.

DURING THE last decade, thousands of citizens have trooped to U. S. Land Offices located throughout the west to take advantage of the Small Tract Act of 1938 and procure for themselves five-acre homesteads in the desert. For many, the act has opened up a portion of man's estate they have long shunned. Discovering the desert, they find themselves compelled to return whenever opportunity invites. The desert seems to haunt them as no other face of nature has ever done. As John Smeaton Chase said in 1918: "It is as if (they) were bemused by the gaze of a sorceress, or had listened long to some witching monotonous strain: . . ."

From every station they come. Since the provisions of the act reduce financial state to a minimum of importance, even the person of average means can have his winter home, which he usually elects to build himself. Many are the hours from his weekends and vacations he spend breaking the silence of the desert with sounds of hammer and saw. When his cabin finally is completed, he stands back and views it with a sense of satisfaction that only one who has created can experience. He has invested something much more than a little money. Through his personal efforts, he has invested a little of his heart and soul.

The author's camp on his homestead in the Mojave Desert near Twentynine Palms, California. In the foreground is the "swelter shelter," a simple ramada that in summer was his only source of shade.



I must count myself among these thousands. In June 1950, I learned from the pages of *Desert Magazine* that five-acre jackrabbit homesteads located in the desert could be leased at very nominal cost through the District Land Office in Los Angeles. Upon inquiry, the Land Office sent me the information with which all homesteaders are familiar: length of lease, three years with option to purchase if suitable improvements have been made; cost of lease, \$3 per acre plus \$10 filing fee; purchase price, about \$10 per acre. I was amazed at the simplicity of these terms. They asked just what I could provide: a lot of hard work with a minimum of financial outlay.

My enthusiasm became enormous. The Land Office had provided a small map showing available land near Twentynine Palms in the Mojave Desert. The locating of a lot seemed so simple that I asked a friend, Phil Hale, to drive out to Twentynine Palms the very next Sunday, fully expecting to choose a lot before the day was over. I could not have been more wrong, as any homesteader who has diligently searched for an appealing lot must know. It was nine months later that I finally found a piece of land that suited me.

There are hundreds and hundreds of acres that the prospective homesteader wouldn't want if they all were

given to him. But eventually he finds a piece of land that causes his somewhat waning enthusiasm to soar. He stands on the land and thinks to himself, "This is it!"

The land he chooses usually contains some feature that makes it unique. This distinguishing feature may be a particularly fine stand of Joshua trees, an interesting rock formation, perhaps an inspiring view. In my case, it was a little mountain, a miniature of those that made up the nearby rugged Bullion Range. It was long and narrow with three little peaks and two saddles. One of the saddles was broad and flat and commanded a large portion of the high Joshua desert.

"This would be an ideal spot for a cabin," I thought one day in March, 1951, when my search finally came to an end.

I had in Phil Hale an excellent friend. He was a student of surveying at a Southern California college, and it was largely due to his efforts that my lot was surveyed. In April, 1951, he and I made a rough survey to determine which five-acre lot contained the mountain. To my delight, we discovered that the mountain fitted neatly into the west half of a lot, leaving 2½ acres of flat land in the east half. I leased this lot in May; and in June, Phil, his two brothers, and I spent a wonderful weekend making an accurate survey.

Those two days on the desert I shall never forget. Sleeping under the stars, cooking breakfast over an open fire, walking barefoot in the warm sand—here was a new world that too few of us in the rush of modern life find time to explore.

The first night, just after the sun had dropped beneath the horizon, I climbed to the highest summit of the mountain. From my lofty perch, the view was grand! To the southeast, the white splash that is Mesquite Dry Lake still contrasted sharply with the darker surrounding land even though dusk had settled on that part of the desert. Beyond the lake, the first lights of evening in the little community of Twentynine Palms twinkled merrily. To the east, the great Bullion Mountains loomed dark and ghostly. The rays of the sinking sun still played upon their highest peaks, as day took a final stand before the silent, certain onset of night. To the west, a great plain, seemingly boundless and bare in the last light of day, stretched forth until it merged with the purple San

Bernardino Mountains at the horizon.

How vast was the scene! How lacking in bounds! How solitary, yet how welcome!

Those two days were sufficient to cause me to fall under the desert's spell. Many times I returned during that summer, but due to uncontrollable circumstances, not at all during early fall.

It was November before another opportunity presented itself. I came this time to see the effect of the weather on a road I had graded connecting my lot with the nearest public road. Always before, I had driven to the Twentynine Palms airport, passed through an open gate in the airport fence and then picked up the public road just inside. But this day the gate was closed, boarded up. Hardly believing my eyes, I got out of the car to examine the barrier. Soon I noticed an ample gentleman in a custodian's uniform strolling toward me.

"Want somethin'?" he asked in an unhurried fashion.

I told him I had a homestead up the road, and the only way to get to it was to drive through the gate that was now closed.

"You may have had some land back there, but you ain't got any now," he drawled, and my legs began to feel a little weak. "Government's taken over all that part of the desert."

"What for?" I managed to ask.

"I don't know, fellow. They only pay me to see that no one gets through here."

"But this is the first I've heard of the Government's doing this! I've put hours and hours of work into that lot, and invested in it what to me is a substantial amount of money. Surely the Government wouldn't take it away without a word of warning!"

Standing tall in the shadow of the Government, the custodian said unsympathetically: "Fellow, this is a national emergency. In an emergency the Government takes what it wants, whenever it wants it. It'll take your land, or it'll even take you!" He pointed his finger at me for emphasis.

I inquired what branch of the Government was taking the land.

"The Government, fellow, just the Government. That's all I know."

All my further queries were for naught. I asked him when the Government planned to make compensation, and he misinformed me that there would be none.

"The Government takes what it wants. If they don't want to pay you for it, they won't!"

This turned out later to be completely false, but at the time I could do nothing but accept it as true. In despair, I turned the car around and drove away.

The land was being withdrawn from private use by the Navy Department to be used as an artillery range by the Marine Corps. I was informed by the Land Office in Los Angeles. They were kind enough to give me an address in Eleventh Naval District in San Diego in order that I might secure more specific information.

Thus began a long and tedious correspondence with the Navy that lasted for more than a year. It was not until December, 1952, that they were even sure they were going to include my lot within the artillery range, despite the fact that they had blocked every feasible means of access to it. Of course, they could tell me nothing about what compensation I would receive. That was entirely out of their province. That would be handled by the Justice Department. At the time of this writing, April, 1953, the matter is still not concluded, although in all fairness I must say that it appears that it will be before too long. Considerable progress has been made since I am now corresponding with the Justice Department rather than the Navy.

There is little left to say. Many are the homesteaders who have suffered much more than I. I have great sympathy for the person who has spent hours and hours from his weekends and vacations building a desert cabin, and then without a word of warning has it snatched away. He may be repaid for the money he put into it, but he can never be repaid for heart and soul he invested.

ANSWERS TO DESERT QUIZ

Questions are on page 10

- 1—Two fangs in the upper jaw.
- 2—The Colorado Desert of Southern California.
- 3—Canyon of the Dead.
- 4—In dry arroyos.
- 5—Shrub.
- 6—Almost anywhere.
- 7—The Lincoln County War.
- 8—The Colorado River.
- 9—Quartzsite, Arizona.
- 10—New Mexico.
- 11—The Papagos.
- 12—Zion National Park.
- 13—Father Font.
- 14—Secretary of the Interior.
- 15—Notorious outlaw.
- 16—Las Vegas, Nevada.
- 17—Cinnabar.
- 18—Panamint Mountains.
- 19—Harry Oliver.
- 20—Salt River.

Hard Rock Shorty of Death Valley



"Naw, I never done much huntin'," Hard Rock Shorty was explaining to the sportsmen who had stopped at the Inferno store for gas. The men said they were on their way down to Badwater for duck shooting, but they wanted to know about deer and other game which might be found back in the mountains.

"Ol' Pisgah Bill was the best marksman ever lived in these parts," Shorty went on, "an' he kept our camp supplied with wild meat all the time. Bill wuz so good he could kill six ducks with one shot. Took a lot o' patience, waitin' fer 'em tu git lined up, but Bill had more patience than an undertaker.

"One winter we wuz camped up in Fried Egg Canyon workin' on them lead claims of ourn, an' Bill ran out o' shells fer that ol' 10-gauge shotgun he had. Had plenty o' .32 rifle bullets — but no rifle. But Bill fixed that up all right. He left that shotgun in the pool at that alum spring overnight an' that shrunk the barrel right down to the right size fer them rifle bullets.

"Huntin' wuz good that winter an' we had rabbit or quail or duck fer supper every evenin'. But finally them rifle bullets wuz all used up—an' no chance tu git any more closer'n Barstow.

"Then Bill sed he wuz gonna try an experiment. He moved up the canyon a half mile to that ammonia spring where the water freezes everything that gits into it. Bill'd wait on the bank holdin' the barrel o' that gun down in the water 'til a cotton-tail come in sight. Then he'd pull the gun out, an' pour a little water into the barrel. That water'd freeze the instant it got in the gun, an' when Bill'd pull the trigger it wuz a dead rabbit — shot with an icicle."

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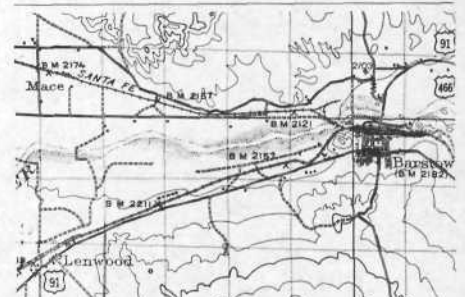
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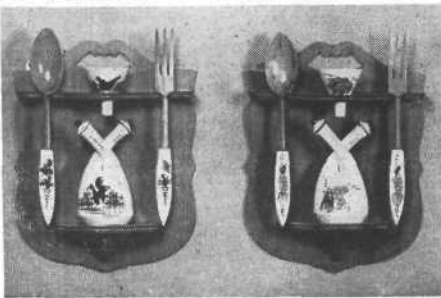
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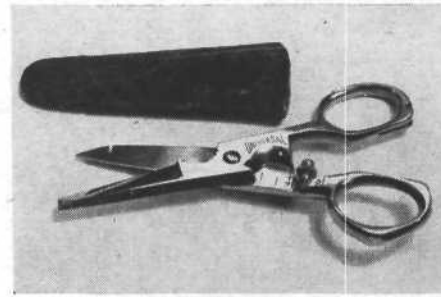
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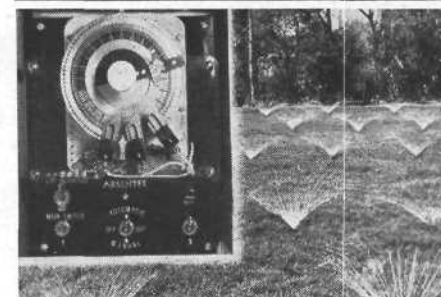
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LETTERS

James White's Voyage . . .

Berkeley, California

Desert:

The letter of Roy Lappin in your August issue regarding Robert Brewster Stanton's visit to James White, and the editorial response to it, seem to justify some added comment.

Mr. Lappin might have told of William Hiram Edwards, late of Compton, California, and one of Stanton's crew, who visited Lappin in November of 1907 to get him to sign the affidavit as to the correctness of the typed interview.

It appears that Lappin was next door neighbor to White, the man who is reputed to have ridden through the Grand Canyon on a raft in 1867.

Mr. Lappin has never received a copy of Stanton's *Historical Facts and Records* because it was never published. In addition to the Bell version of the White story which *Desert* cited, Stanton wrote about it in the magazine, *Trail*.

In 1932, there appeared the book *Colorado River Controversies* with Stanton's name appearing as author. James Chalfant was the editor, and Julius F. Stone financed the publication. The book deals with the White story and with the Separation Affair of the 1869 Powell Colorado River trip.

Stanton's manuscript is still seeking a publisher, but the general historical and geological portions have been neglected in recent years. As with the White story, that of Stanton's cruise through the Grand Canyon would provide a modern day thriller for the movies.

If Mr. Lappin wants to find Stanton's book, it can be located through second-hand book stores or in any well-stocked library. He will find much of his stenographic work quoted.

OTIS MARSTON

Rockhound Etiquette . . .

King City, California

Desert:

While on a recent visit to Jade Cove, California, I learned that rockhounds are not popular with many landowners and property leasers in the area.

The foreman of one cattle company which is leasing the Hunter Liggett Reservation (military) in Monterey County, was quite upset by the way the fences enclosing the fields were being treated by trespassers. He blamed the rockhounds. In some places the fences had been pulled down or

even cut with pliers, allowing the cattle to escape onto the highway. He admitted that other people besides rockhounds frequent the area, namely fishermen.

Since this land is government property, it very easily could be closed off to all visitors, and a good collecting area would become out-of-bounds for rockhounds.

I personally don't think we rockhounds are to blame—but "a word to the wise" may protect us all.

MARNO THOMPSON

Desert Miracle . . .

Metamora, Illinois

Desert:

Two poems in the August issue—"Desert Miracle" on the poetry page and "Indigo Bush," quoted in Randall Henderson's editorial, aptly expressed my sentiments when, one recent evening, our potted night blooming cereus spread its gorgeous blossoms.

We have a number of desert plants which we store in the basement during the winters. Besides the cereus, there are several yuccas and two century plants over 50 years old.

When the yuccas are in blossom, we find the small blue moth common to them. Since in our part of the country these desert plants are few and far between, we wonder how these blue moths find them, and how they live when our yucca blooms are gone.

From these cactus plants I have learned not to despise the uglier objects of Nature. Our night-blooming cereus revealed again how much beauty they can yield.

MRS. S. M. SNYDER

Where Bandits Rode . . .

Riverside, California

Desert:

I enjoyed reading Randall Henderson's story, "Boat Ride on the Big Bend," in the July issue of *Desert*. In 1915, I took the first heavy army transportation to that "last frontier," as it was then known, following the evacuation of Galveston after the hurricane of that year.

I was first based at Alpine, attached to "A" Troop, 13th Cavalry. I drove a truck from there to Terlingua, about one hundred miles south, over roads that followed cattle paths, dry creek beds and in places clung precariously to the mountain sides.

Later, when attached to "A" Troop, 14th Cavalry, I narrowly missed the massacre at Glen Springs, an outpost between Boquillas and Hot Springs. A force of Mexicans, hiding in the candelilla stacks, attacked at night, setting fire to the thatched roof of the adobe shack, driving the Americans out and shooting most of them. At first sup-

posed to have been a raiding party of Villa's band, the outlaws later were believed to have been a disgruntled group of candelilla poachers with whose activities the border outpost interfered. Sgt. Joseph Alberta and I arrived just after the raid with two trucks, a month's supply of food and ammunition and a relief team of ten men. But we were too late. The place was a shambles. Only the sergeant and two others were alive.

There has evidently been some change in place names. The creek near Boquillas we knew as Tarronea (Torrent), and the weed from which wax is extracted was candelaria. Butcherknife Mountain was halfway between Alpine and Terlingua. Elephant Rock was on the road from Marfa to Rim Rock over which the 13th pack train used to carry supplies to the outpost at San Rosalia.

I am somewhat surprised that one of the most interesting places in Big Bend has not been included in the park. We knew it as Adobe Walls Canyon. It is on the old road to Presidio. You drop down off the rim-rock into the canyon, which has a completely different vegetation than is found on the uplands. To the right, high upon the wall, is a red sandstone cone. On the level ground at its base are dome-shaped piles of various colored sands, the top grains in constant movement.

JAMES B. JUDGE

Confusing Quartet . . .

Santa Fe, New Mexico

Desert:

The September issue of *Desert Magazine* is at hand, and I'm delighted to see my "Confusing Quartet" story on page 13.

However, I was shocked to read *Desert's* caption under the Norton Allen sketch on page 16. It completely contradicts facts stated quite clearly in the story.

Here are the facts: Sotol is a lily but *not* a yucca—it is a *Dasyllirion*; Nolina is a lily but *not* a yucca—it is a *Nolina*; Agave is *not* even a lily—it is an *Amaryllis*. Joshua is *not* a broad-leaf yucca, it is a narrow-leaf yucca. *Yucca schidigera* is the broad-leaf yucca of the Mojave Desert which grows in close company with the Joshua.

How in the world so much misstatement could have been crowded into that one caption I cannot understand.

NATT N. DODGE

The "Confusing Quartet" had *Desert's* caption writer completely befuddled. Apologies to Author Dodge and to other *Desert* readers who caught the short caption's many mistakes.—R.H.

Here and There on the Desert

ARIZONA

Wetbacks Few in Arizona . . .

TUCSON — There is no wetback problem in Arizona. That is the opinion of C. P. Pettingill, assistant chief inspector for the U. S. Border Patrol in Tucson. Wetbacks don't want to come to Arizona, he said, because it isn't practical. All the state's main farm crops are too far from the border, meaning a trip of about 200 miles before the alien can find work. "And we have the border so well patrolled they know they can't escape us," Pettingill added. He did, however, predict an increase in the Arizona problem if the tide of aliens flowing into California is stemmed to any extent.—*Yuma Daily Sun*.

Fort Huachuca Plan . . .

BENSON — The Fort Huachuca military reservation would be divided among the state and sheep growers under a proposal being considered as an answer to the "what-to-do-with-Huachuca?" problem. The state would get 23,000 acres for wildlife research and study areas and for its buffalo herd. Eight thousand acres would be leased for sheep grazing. Four thousand acres would be left fallow for three years, then contour plowed and seeded. The proposal has been approved by U. S. Army Engineers and Sixth Army Headquarters.—*Phoenix Gazette*.

Find Fossilized Elephant . . .

BENSON—A link with the past that may date back several millions of years was unearthed recently in the Benson area. The find, which consisted of the lower jaw bone and two ribs of a prehistoric elephant, was made by Charles Stevenson, 18, while out in the hills hunting rabbits. E. B. Sayles, curator of Arizona State Museum, Tucson, encased the fossil in plaster and removed it to the museum for further study. He said the elephant is neither mastodon nor mammoth but could be an entirely new species which might bridge the gap between the two. —*Tombstone Epitaph*.

Promises Papago Economies . . .

SELLS — Enos Francisco, elected leader of Arizona's more than 4000 Papago Indians, has announced a policy of financial retrenchment. Francisco was named chairman of the Papago Tribal Council, succeeding Thomas Segundo who resigned to continue law studies at the University of Chicago. "We are not going away

from the plan (the \$23 million long-range program for reservation rehabilitation approved by Congress)," Francisco said, "but we are going to make every effort to follow an economy program, making commitments only as appropriations are available." The new chairman, who served as vice-chairman and manager of the tribal loan board under Segundo, was elected to fill the unexpired term of his predecessor. He will face election to the \$2400-a-year post for a full year in January.—*Phoenix Gazette*.

Navajo Horses Must Go . . .

WINDOW ROCK—The horse, once a sacred economic standard of the Indian, must go from reservation lands, the Navajo Tribal Council has decided. Once the number of horses a tribesman possessed indicated his prosperity. But the usefulness of the horse largely disappeared with the advent of the machine age on the reservation. Their chores taken over by cars, truck and tractors, the horses were turned out on the range, where they now roam freely and multiply unhindered. They tramp grass needed for sheep and drink scarce water needed for both sheep and humans. The Tribal Council has allocated \$25,000 a year to rid the range of about 15,000 free-roaming horses. A maximum of \$10 a head will be paid for horses brought in, and the council hopes to sell them at a profit. Allan G. Harper, area director for the Indian Bureau, said the tribe took the action to enhance conservation measures.—*Phoenix Gazette*.

Indian Liquor Needs State Okay . . .

PHOENIX — The Arizona State constitution will have to be amended if Indians in the state are to have the right to buy liquor. A new law wiping out all federal prohibitions on the sale of liquor to Indians was recently signed by President Eisenhower. But the

people of Arizona must make final decision on the repeal by either supporting present state laws banning liquor on the reservation or by repealing such laws. According to sponsors of the federal bill, the local option clause was inserted at the request of tribes, notably the Hopi in Arizona, which have traditionally opposed the use of alcoholic beverages by their people.—*Phoenix Gazette*.

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CALIFORNIA

Plan Desert Promotion . . .

CALEXICO—Groundwork for an intensive promotion campaign to focus attention on Southern California's desert as a desirable place to live, work and play has been laid by the California State Chamber of Commerce. Among projects planned in the program are a contest similar to the successful desert slogan contest conducted by the chamber last year, and a reprinting of the booklet *Southern California Deserts*.—*Calexico Chronicle*.

Canal Cost Cut \$500,000 . . .

EL CENTRO — Reconciliation of differences and agreements reached at a series of conferences held during the past two years between representatives of the Imperial Irrigation District and government officials have effected savings of one-half million dollars of All-American Canal costs. The dispute over additional charges amounting as high as \$750,000 is expected to be resolved in the near future. Original contract for the All-American Canal, including the Coachella branch, called for expenditures of not more than \$38,000,000 of which \$24,000,000 has been charged to the Imperial Irrigation District. Payment was to be from net revenues over a period of 40 years. No payments will be made, however, until a final agreement is reached on what is properly chargeable to construction costs. According to Evan T. Hewes, district president, this is the first time since 1949 that an agreement on differences has been worked out, and he is confident of the success of future conferences.—*Imperial Valley Weekly*.

Studies Wetback Problem . . .

WASHINGTON — A minimum of 100,000 wetbacks are living in California illegally. That is the estimate of Atty. Gen. Herbert Brownell, Jr., after a study of the wetback problem. He added that the border patrol is doing a splendid job with the manpower and money available but said both are completely inadequate. Immigration officials have said they could check the illegal entry of Mexican workers into the United States by adding 2000 men to Southwest border patrols, or about tripling the present 1,089-man force. There have been suggestions of using troops to patrol the border, but immigration officials hope such drastic measures will not be necessary. The Mexican government has agreed to cooperate in the campaign to stop the wetback invasion which, according to Brownell, "has created a law enforcement problem of the first magnitude" in California. — *Los Angeles Times*.

Demolition Teams at Work . . .

NEEDLES — An Army Engineer Range Clearance Detachment has been located at Needles for the purpose of destroying any unexploded shells, bombs or land mines which may have been left on the desert during maneuvers in the early years of World War II. Anyone knowing the location of any unexploded missile is requested to report it to Capt. Gilbert H. Gulley, General Delivery, Needles.—*Desert Star*.

May Return to Public Domain . . .

INDIO—Coachella Valley County Water District indicated it would voice no objection to the Bureau of Reclamation's proposal to return to the public domain 25,000 acres of desert land. The land is located above the Salton Sea, adjoining the All-American Canal as it enters and prior to its entry into Improvement District No. 1. If returned, the land would be administered by the Bureau of Public Lands and possibly opened to homesteading. — *Date Palm*.

Clams Clog Canal Channels . . .

COACHELLA—"We get rid of the moss and now we have clams," moaned directors of the Coachella Valley Water District when clams the size of quarters began showing up in Coachella Valley irrigation facilities. The clams may be immigrants from England, a California Fish and Game Department study revealed. Their type was first found in the Columbia River in Oregon whence they had migrated from England. Then the claims transferred to the Sacramento River where they have become so plentiful that they have built up bars in the water. It is not known whether they are edible, and how they came to the Coachella Valley remains a mystery.—*Coachella Valley Sun*.

Mastodons in Death Valley . . .

DEATH VALLEY—First discovery of the tusk of a mastodon in Death Valley has been reported by Dr. Thomas Clements, head of the geology department at the University of Southern California. The curved tusk, 39 inches long, eight inches in diameter at one end and four inches at the other, was found protruding out of the sand and rocks of the bank of a recent stream channel. The channel led from the dry bed of what once was a large lake in the northern part of Death Valley in the Pleistocene era 10,000 to 15,000 years ago. The tusk crumbled to pieces, despite precautions Clements took to remove it carefully. However, the presence of badly weathered bones in the remaining lake beds

near the find offered the scientist the hope that other recognizable parts may yet be found.—*Inyo Independent*.

NEVADA

Hawks Prefer Reptiles . . .

BOULDER CITY — According to Harry Craft, three western red-tailed hawks which he has raised in his back yard since they were brought to him as fluffy chicks by two boys who had found them in Charleston Mountains, would rather eat reptiles—lizards and snakes — than rodents and squirrels. It has been quite a chore to find food for them, Craft said, since they want only raw meat that has been recently killed. Asked if the hawks had become tame, he expressed the opinion that such birds never could be tamed. "Two of them already have reached maturity and have gone out foraging for themselves," he said, "and the third one soon will be ready to leave." — *Las Vegas Journal-Review*

Emergency Aid for Stockmen . . .

CARSON CITY — Assurance that federal loans will be available for loan to stockmen in drouth-stricken areas of the state were given in a statement by Director Robert Farrington of the agricultural credit service to the governor's office here.—*Humboldt Star*.

Lake Mead Low This Year . . .

BOULDER CITY—Excepting 1946, this year's maximum level of Lake Mead was the lowest recorded since the lake filled up overflowing into the spillways in 1941. The maximum level

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Palm Desert, California

was reached July 13 with a high of 1166.47 feet. The maximum for 1946 was 1164.3, only three feet lower. "However, there is still plenty of water in the lake to meet irrigation requirements and generate firm energy allotments," assured officials of the Office of River Control. The Lake contains approximately 19,000,000 acre-feet of water, enough to supply downstream irrigation requirements for more than three years. — *Las Vegas Review-Journal*.

No Sagehens for Hunters . . .

CALIENTE—Due to a poor hatch and a reduction in birds, Nevada will not have a sagehen season this year, the State Fish and Game Commission decided after reviewing findings of an annual survey by field crews. It was apparent from the survey report, the commission said, that the hatch was very spotty with only about one chick recorded per adult sagehen on an overall basis. Very few areas in the state showed an increase at all, and a 33 percent drop was recorded in the total sagehen population as compared with 1952 survey findings.—*Caliente Herald*.

Old Jail May Serve Again . . .

RHYOLITE — Deputy Sheriff Bob Revert of Beatty is considering putting the historic Rhyolite jail back in service until the county rebuilds the Beatty jail, destroyed by fire in June. Revert now is forced to take prisoners to Tonopah, a long and expensive trip. The Rhyolite jail is a solidly constructed concrete structure with huge iron doors. "All it needs is a good lock and it should be ready to do business," Revert observed.—*Beatty Bulletin*.

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THE *Desert* MAGAZINE
PALM DESERT, CALIFORNIA

From Nevada's Ancient Past . . .

CARSON CITY—Scientists at the Nevada State Museum are studying seven mummies — believed to have lived between 2000 and 10,000 years ago—unearthed in recent excavations in caves along the shores of prehistoric Lake Lahontan. Initial discovery of the caves was credited to Mr. and Mrs. G. C. Rollins of Lovelock, and J. W. Calhoun, director of the Santa Barbara, California, Museum of Natural History, conducted the excavations. Calhoun said the presence of bones from extinct horses and camels in the caves convinced scientists that the discovery is by far the oldest yet made in Nevada. He said mummies of both children and adults have been uncovered. They were buried beneath flat baskets in the cave floors. The prehistoric people are believed to have migrated across the Bering Strait as the glaciers that had covered the area began to recede. —*Las Vegas Review-Journal*.

Fish, Wildlife Program Mapped . . .

WASHINGTON—Nevada will receive \$474,000 for refuge management, fish and wildlife restoration projects, predatory animal control and game law enforcement, if the U.S. Fish and Wildlife Service's 1954 budget is approved. Considerable work is planned at the Sheldon National Antelope Refuge in northern Washoe and Humboldt counties, the Desert Game Range and the Overton Waterfowl management area in Clark County, the Ruby Lake Wildlife Refuge in Elko County and the Stillwater Refuge in Churchill County. A survey of fish resources and harvests in Lake Mead and Lake Mojave and a trout inventory of all Nevada streams also are planned. —*Caliente Herald*.

NEW MEXICO

Indian Policy Presented . . .

GALLUP—Indians of the United States will be granted full independence from federal controls as soon as tribal governments can demonstrate their "economic maturity." And the federal government will do all in its power to speed the process through education and legislative grants of increased local responsibility. These are the keystones of the Eisenhower administration's Indian affairs policy, as outlined at a panel discussion in Gallup by Orme Lewis, assistant secretary of interior. Lewis said the goal of the new GOP administration is to give Indians exactly the same status as other American citizens, with freedom to manage their own affairs, make their own decisions and share the same responsibilities.—*Phoenix Gazette*.

New Mexico Voters to Decide . . .

SANTA FE—New Mexican voters in the past have been hesitant to legalize liquor sales for Indians, but they soon will have another opportunity to pass upon the problem. Before its adjournment in early August, the U. S. Senate opened the way by passing a bill eliminating federal prohibition on sale of liquor to Indians. For many years bootlegging on the reservations has posed a serious enforcement problem to state law officers. The prohibition grew out of a 19th century law including "all the Indian country."—*El Crepusculo*.

THE *Desert* MAGAZINE CLOSE-UPS

Robert N. Carlile, Life-on-the-Desert contest winner whose homesteading experience is told in this issue of *Desert Magazine*, was brought up in the desert's back yard. His family lived in the little community of Lakeside, in the back country of San Diego County, California, and it was just a hop skip and jump over the mountains to Borrego Valley. The Carliles frequently packed a picnic basket and spent the day in this lovely desert retreat.

"These occasional one-day desert excursions eventually failed to satisfy my desire for the sandy wastes," Carlile writes. "In the summer of 1950 a series of articles by Catherine Venn began in *Desert Magazine*. Miss Venn had taken advantage of the Small Tract Act of 1938 and had forsaken the noise and smog of Los Angeles for a lonely five-acre tract in the desert. The stories inspired me to write to the Land Office in Los Angeles requesting information concerning the act."

Carlile's story tells of the jackrabbit tract he finally located on the Mojave near Twentynine Palms, California.

Now living in Menlo Park, California, while he completes work on his Ph.D. degree in electrical engineering at Stanford University, Carlile and his wife find time for only infrequent visits to the desert. Carlile, 24, did undergraduate work at Pomona College and was awarded his master's degree from Stanford.

"My experience in the Twentynine Palms area has not discouraged me from wanting to homestead again," he writes. "Someday we will find another desirable lot, and then the ironwood and cholla will have to move over, for another cabin will be added to the increasing number of homesteads being built in the desert country."

Sheep Lab Control Transferred . . .

FORT WINGATE — The Southwestern Range and Sheep Breeding Laboratory at Fort Wingate has been taken out of the hands of the Indian Bureau and in the future will be controlled by the Department of Agriculture's Bureau of Animal Industry. According to Secretary of the Interior McKay, one of the principal reasons for the transfer was "the growing recognition of the results achieved by the laboratory and the realization that its work is beneficial not merely to Navajos but to the whole sheep industry of the Southwest." The laboratory was established in 1935 to produce an improved breed of sheep and a better quality of wool through crossing of native Navajo sheep with high grade rams. About \$70,000 in current operating funds, 2439 acres of land and a number of buildings are involved in the transfer. The move was part of a broad program aimed at narrowing the scope of Indian Bureau operations.—*New Mexican*.

Apaches Strengthen Claim . . .

ALAMOGORDO — Documentary evidence has been uncovered in Washington which substantiates the Mesquero Apache Indians' claim on the 27,000-acre Fort Stanton pasture, according to Rev. Wendell Chino, representative of the Apache Tribal Council. Old maps and two treaties—dated 1852 and 1875—seem to prove that the land should have reverted to the Apache people when the federal government ceased to use it. The old Fort Stanton military hospital recently was turned over to the State of New Mexico for use as a tubercular hospital. Rev. Chino pointed out that the 1100 Indians living on the reservation desperately need the pasture land for the expansion of their agriculture.—*Alamogordo News*.

New Indian Head Sworn In . . .

WASHINGTON — Glenn L. Emmons of Gallup was sworn in August 10 as Indian commissioner. After taking his oath from Floyd E. Dotson, chief clerk of the Interior Department, Emmons said he preferred not to comment on his plans until he learns more about his job. He succeeds Dillon S. Myer.

UTAH

Flash Flood Hits Zion . . .

CEDAR CITY—More than \$10,000 damage was caused by a mid-summer flash flood which struck in Zion National Park. Mud and rocks covered the Zion highway and washed out portions of the road. At least 3½ miles of the highway will have to be resurfaced.—*Iron County Record*.

New Deer Hunt Regulations . . .

SALT LAKE CITY — Utah deer hunters are advised to study carefully the general rules and regulations for this year's seasons and the special provisions for the particular area they intend hunting. These will be found in the 1953 deer proclamation available from all license vendors and department offices in Salt Lake City. Greater variation in types of hunts and methods of hunting is the result of broader management powers given Utah's Board of Big Game Control by the 1953 legislature. Under this new authority, the board has attempted to distribute hunting pressures more equitably throughout all areas of the state.—*Orem-Geneva Times*.

Relic of Early Trapping Days . . .

ST. ANTHONY—A relic of early Utah trapping days, a handmade beaver trap set and left on a mountain stream, was discovered recently by a present-day trapper, Francis Curr of Chester. Curr found the trap in the southeastern section of Fremont County, where it had been set and forgotten more than 100 years ago—possibly by Jim Bridger, John Colter or Andrew Henry, famous Utah trappers and Mountain Men. The trap is about 30 inches long with 13-inch jaws. A handmade chain ends in a large iron ring which served as a stake-down.—*Salt Lake Tribune*.

Increase in Chukar Broods . . .

CEDAR CITY—Doubling of brood stock numbers and expansion of facilities at state bird farms should result in a major increase in the number of chukar partridges released in 1954. Of the 6475 young chukars hatched at the Price game bird farm this spring, 2000 will be transferred to the Springville farm to be carried through the winter for brood stock there a year hence. Another 2000 birds will be held at Price for next year's brood stock. Balance of the Price chukar hatch will be released this fall as supplemental stock to partridges already established in 16 sites throughout the state.—*Iron County Record*.

Forest Fires Take Toll . . .

KANAB—Utah recorded only seven more forest fires in 1952 than in 1951; but the area burned in 1952 was double that destroyed the previous year. A nationwide forest fire analysis issued by American Forest Products Industries showed 202 fires burned 7049 acres in Utah in 1952. During 1951 a total of 195 fires destroyed 3302 acres. Drouth conditions were blamed for the increase. James C. McClellan, chief forester for AFPI, lauded Utah's work in the national "Keep Green" forest fire prevention

campaign and said this work, plus the efforts of the efficient forest fire fighting organizations in the state, prevented many additional fires.—*Kane County Standard*.

Souvenir Postcards Rescued . . .

SALT LAKE CITY—To help souvenir cards to their destinations—and insure added publicity for the Salt Lake area—the Salt Lake City Chamber of Commerce paid the postage due on hundreds of souvenir postal cards with miniature bags of salt or copper ore attached. The cards had been delayed in the main post office because mailers had placed two-cent stamps where three cents postage is required. The Salt Lake Lions Club was considering taking on the postage-due problem as a regular activity of its advertising committee.—*Salt Lake Tribune*.

Prison trustees are being used in Utah, under the direction of the State Fish and Game commission, to seine trash fish from popular game fishing waters in the state.

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MINES and MINING

Las Vegas, Nevada . . .

A midnight fire at the Three Kids Mine that caused several hundred thousand dollars' damage and halted production of manganese ore going into the nation's stockpile will be investigated. Meanwhile, work stood still. "Even if we started immediate reconstruction," said Sid McCarrel, assistant to Plant Manager F. A. McGonigle, "it would take at least eight months to complete repair work and get back into production."—*Mining Record*.

Kingman, Arizona . . .

C. A. R. Mines, Inc., is dewatering its Chapel Mine on Stockton Hill preparatory to exploring old levels that are reported to contain commercial grade lead-silver ore. The property was first worked for high grade silver ore in 1864.—*Mining Record*.

Kingman, Arizona . . .

The Ruth and Rattan mine located at the lower end of Silver Creek below Oatman is the first all-gold mine to attempt to get underway in recent years. Present work consists of the placement of equipment and the unwatering of the 400-foot shaft. Two known ore bodies will be explored and the possibilities of new and virgin ground investigated. The operation is being conducted by the Lead King Company.—*Battle Mountain Scout*.

Searchlight, Nevada . . .

A new strike of scheelite ore has been reported on property recently optioned to Homer C. Mills of Searchlight. Mills claims assays disclose high tungsten values ranging from \$232 to \$1599 per ton. The property, located in the Old Woman Mountains near Danby, San Bernardino County, California, would be operated by the Searchlight Consolidated Mining and Milling Company and the Sioux Mining and Milling Company.—*Mining Record*.

Tombstone, Arizona . . .

Upon completion of survey work under the Defense Minerals Exploration, no new ore bodies were uncovered at the Abril Mine in the Dragoon Mountains. The low price of zinc has made it impossible to mine any of the remaining ore, and the Abril has been dismantled and closed down. Operations had been in progress since January, 1951, under lease by Sherwood B. Owens of Tucson from Shattuck Denn Mining Corporation.—*Tombstone Epitaph*.

Henderson, Nevada . . .

After two years of construction, Pioche Manganese Company's electric furnace at Henderson is now in operation. The first ferromanganese to be produced in the Henderson area was tapped from the large electric furnace June 22. A second furnace is expected to be completed and in operation in the near future. Pioche Manganese is an associate company of Combined Metals Reduction Corporation, and much of the furnace feed is being produced at a kiln located in Caselton, Lincoln County, from ores mined in that vicinity by C.M.R.—*Humboldt Star*.

Salt Lake City, Utah . . .

Improved metallurgy for the atomic age is being developed at the old Murray smelter formerly operated by American Smelting and Refining Company. The assay office and equipment now belongs to Minerals Refining Company headed by Paul Cardon, chemist and inventor. Cardon and his associates are separating rare earths into their component parts, giving particular attention to the monazite recently discovered in Idaho's Boise Basin. According to Cardon, monazite is the world's most available source of rare earths, which are extracted by use of a magnetic separator. The Cardon process—based on an exchange of ions—then separates the various rare earths.—*Mining Record*.

Austin, Nevada . . .

The Kingston mine and mill in Kingston Canyon, inactive for the past two years, have resumed operations. Gordon Scheckler and associates have taken a lease on the property. The mine, a gold and silver producer, dates back to early Austin mining days. The mill was completed two years ago and is capable of handling about 75 tons of ore a day.—*Reese River Reveille*.

Gardnerville, Nevada . . .

Purchase of the tungsten mill in the Pine Nut range from Alpine Mining Company has been announced by the Metallurgical Development Company of Gabbs, new owners. In addition to doing custom milling of tungsten ores, M.D.C. recently opened up a valuable tungsten deposit on the mill property. Open pit methods are being used to mine the ore, and several thousand tons of profitable ore has been exposed and is being milled.—*Territorial Enterprise*.

Petaca, New Mexico . . .

A new firm, Tungsten Consolidated, is recovering columbite ore three miles west of Petaca in Rio Arriba County. The firm commenced actual mining operations in June, and several thousand pounds of the mineral have been shipped to Kenametal, Inc., Latrobe, Pennsylvania. South Dakota is the only other state that is at present mining and processing columbite ores. The other known source of the metal, a master alloy, is Nigeria, Africa, where the ore is recovered from tin mining. According to Ross Martinez and Glen Slater, who are in charge of Tungsten Consolidated's operations, large tonnages of the mineral will be shipped, as exploration work indicates from 2.8 to 4 pounds of columbite can be recovered for every yard of earth moved.—*New Mexican*.

Carrizozo, New Mexico . . .

According to C. E. Degner, president of New Mexico Copper Corporation, a recent discovery at the company's Conqueror Mine near Corona indicates values of \$40 to \$100 per ton in molybdenite, an oxide of molybdenum. Metallurgical tests are now underway to determine the best method of extraction. Meanwhile, the mine continues to ship fluorspar. The ore, carrying values in fluorspar, copper and lead, is being stockpiled, to be milled later by the corporation, which plans to build its own mill near Carrizozo or Corona.—*Mining Record*.

Gabbs, Nevada . . .

Big Top tungsten mine eight miles southeast of Gabbs has shipped 3000 tons of ore during seven months of open pit mining. Shipments to the U. S. Vanadium Corporation mill north of Bishop have averaged a little over 8 percent, although original assays had been as high as 15 percent. Open pit operations will continue until the ore can be taken out at depth through a tunnel farther down the hillside. One of the owners, J. H. Baxter, and an associate, R. R. Reed, plan to construct a 50-ton flotation mill at Gabbs to handle the ore.—*Reese River Reveille*.

Grand Junction, Colorado . . .

Bonus payments to uranium miners in the Colorado Plateau are running \$150,000 a month. Through July 31, they totaled \$2,162,378, Sheldon P. Wimpfen, manager of the Atomic Energy Commission operations office in Grand Junction, reported. The bonus program started in March, 1951, to encourage production of uranium from newly discovered deposits.—*Phoenix Gazette*.

AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

During the several months since we last wrote about the tumbling of gemstones much has happened in the laboratories of the amateur gem cutters of America. And much more will have to happen before this process becomes anything less than a messy, tiresome and expensive way to add a few stones to a collection. We personally like the feel and appearance of baroque gems more than we do the correctly shaped cabochons; they have more character. But for the present at least we will purchase them. We will admit however that it must be a thrill to dump a batch from a tumbler and wash them to see what you have.

Our good friend George MacClanahan of Sacramento explains the phenomenon of tumbling more clearly than anything we have read on the subject. Others have written about how to tumble but we have seen no explanation about what happens in the tumbler. George is making the Quad tumbler now, the result of a lot of experimenting. He writes to us to say that the grinding and polishing action that takes place in the tumbler barrel is produced by the sliding action of the stones against each other. As the barrel turns, the load of stones is inclined to a point where the upper portion of the load starts to slide down the steep incline, to be covered by the following masses of sliding stones. They are then carried to the top of the incline by the rotating barrel to take their turn in this mechanical landslide. This seems to us to be the best definition yet of tumbling—a mechanical landslide. Every rockhound knows what happens to his agates when they have been tumbled through the ages through innumerable landslides, bowled along by streams and tumbled by glacial action.

While a round barrel will give the greatest diameter for the length of a slide it is the wall slip, or the sliding of the entire mass against the side of the barrel, that materially reduces its efficiency. The hexagonal shaped barrel has a slightly shorter slide length and this permits the load to be raised to a greater height with a minimum of wall slip and, at the proper speed, this will add impetus to the slide. Some barrels are coated on the inside to prevent wall slip. When this coating is effective in producing the desired result it also has a tendency to carry many of the stones past the point of slide and drop them on the load. This sometimes causes injury to thin delicate pieces or to the edges of stones.

The volume of the load in relation to the size of the barrel is a determining factor in the time necessary to complete a tumbling operation. In a proper operation about a fifth of the load should be in the sliding motion at all times and the entire load should not exceed two fifths of the entire volume of the barrel. Loads that are less than maximum in volume will have a shorter slide length and will increase the time necessary to complete the operation.

The speed at which the barrel turns is important. The shape and size of the barrel as well as its load will determine at what speed it will give the best results. A fairly accurate method of determining an efficient speed for your tumbler is to listen to the swish of the sliding stones. Gradually increase the speed until you hear a click of dropping stones and then decrease it again until the stones can no longer be heard dropping.

The grinding action of the stones against each other is hastened by the addition of abrasive grain, and the best results are obtained by at least two separate grinding operations before polishing. In the first, or the coarse grind, silicon carbide grit of 40 to 100 mesh may be used. It is wise to add a small portion of 220 grit to this charge in order to get cutting action in the small holes and crevices of the stones. The second grinding operation may be carried on with 320 to 400 grit after the stones and the barrel have been thoroughly washed.

MacClanahan further states that an important factor in producing the desired finish over the entire surface of the stones is the carrying agent. This acts as a filler and carries the grits and polishing material to the hollow areas of the stones which normally would receive no grinding action. Many materials have been used for this purpose such as sawdust, shot, ground cork, rubber and leather clippings. All of these will work to some extent but the chief objection to most of them is that they prolong the operation or they break down and form excessive sludge which prevents the stones from acquiring a good polish.

Under the best conditions the polishing operation of the tumbler requires as much or more time than both of the grinding operations. While it is quite obvious that abrasive grains must be used in order to smash the stones, little has been written about the polishing process. The builder of a tumbler has been told that the type of polishing agent is optional. Few realize that the frictional pressures produced in tumbling are decidedly less than the lightest touch that could be used in a hand polishing operation against a buff. It becomes evident then that polishing agents requiring heavy pressures or thick mixtures are of little value. They greatly lengthen the time required to obtain a polish or they are incapable of producing a polish at all. Levigated alumina, for example, is reported not to have proven very satisfactory. The use of the oxides of tin, cerium or chrome or mixtures of them are much better, but the results still leave much to be desired unless the operating time is greatly prolonged. Linde "A" powder, when properly used with just the right amount remaining in suspension, does very well when it is combined with a carrying agent that is not too easily broken down.

Experimentation indicates that the carrying agent is of prime importance. The ideal substance should be one that will resist abrasion without itself causing abrasion. It should be able to attract and hold the polishing agent and be small enough in size to reach into all the small depressions of the stones being polished.

Our correspondent offers the following tips on tumbling that should prove helpful to many:

Including small fragments of stones when larger pieces are being ground or polished will help speed the whole process.

Don't put in hunks and expect to get graceful drops and pendants from the batch. Break the material down to the approximate shapes desired.

Don't expect large unsightly areas of matrix to disappear in the tumbler; remove them first.

Expect the two grinding operations to take at least 50 hours and the polishing operation to take another 50 hours.

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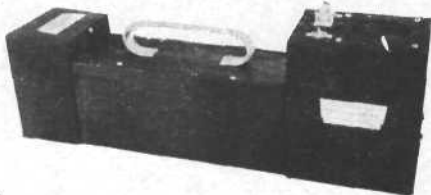
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GEMS and MINERALS

SANTA CRUZ SOCIETY PLANS THIRD ANNUAL SHOW

Santa Cruz Mineral and Gem Society will hold its third annual show October 24 and 25 at the Mission Hill Junior High School auditorium in Santa Cruz, California. Admission is free.

NORTHERN CALIFORNIA ANNUAL SHOW IN OCTOBER

Northern California Mineral Society will hold its annual gem and mineral fair October 17 and 18 in San Francisco. The society is considering changing its name to San Francisco Gem and Mineral Society. Members feel the new name would better identify the group.

Coal, "the most important member of America's mineral family," was discussed by George Land at the August meeting of the Evansville, Indiana, Lapidary Society. Land is research chemist for the West Kentucky Coal Company.

John Gibson, instructor at San Antonio Junior College, was made an honorary member of San Antonio Rock and Lapidary Society after he appeared on a club program as guest speaker. He discussed crystallography.

A potluck dinner and rock sale is scheduled for September by San Diego Lapidary Society.

ALL-ROCKHOUND POW-WOW ELECTION RESULTS TOLD

At the 1953 All-Rockhounds Pow-wow at Vantage, Washington, Darrell Irwin of Walla Walla was elected president for the coming year. Other new Pow-wow officers are S. Elroy McCaw, Bremerton, first vice-president; Tom Stockdale, Vantage, second vice-president; Mrs. Eunice Hansen, Ephrata, secretary, and Gil Morgan, Smyrna, treasurer.

SPEAKER TELLS DIFFERENCES IN NATURAL, CULTURED PEARLS

"The difference between the pearl and the cultured pearl is the fact that Nature started the former and man started the latter," Dr. James J. Boutross told his audience when he appeared as speaker for the Hollywood Lapidary and Mineral Society.

With photographic placards, Dr. Boutross explained the five major steps in producing a cultured pearl. First, the native diver, wearing white to frighten away sharks, collects strong three-year-old oysters to receive the culture cores. The irritant (mother-of-pearl is the best) is inserted in the oyster's fleshy mantle which alone has the power of secreting the nacre. Five or six treated bivalves are then placed in the wire mesh basket which holds the oysters. The basket is kept submerged in the sea by means of rafts. Every precaution is taken to guard against contamination of the water and to protect the oysters from their natural enemies.

Four times a year the baskets are brought to the surface for inspection. After six years or longer, the mature pearl is surgically removed from the oyster.

Climax of the program was the removal by Dr. Boutross of a 6½ mm. pearl from an oyster preserved in formaldehyde and flown from Japan. The speaker promised to have the pearl mounted for the society, as a remembrance of the evening.

NEW MINERAL SOCIETY IN MONTEBELLO, CALIFORNIA

Montebello Mineral and Lapidary Society was organized in May and admitted to the California Federation of Mineralogical Societies at the July convention in San Diego. Charter officers are Donald S. Hall, president; Jack Swartz, vice-president; Jean Hall, secretary, and Dave Yomen, treasurer.

Epidote, garnet and fluorescent material were found by members of Fresno Gem and Mineral Society on a July outing to Strawberry tungsten mine. They toured the mine and mill.

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John D. Altmann of the Australian Gem Trading Company, Melbourne, whose collection of rough and cut Australian gems was shown at the Long Beach show in August, was guest speaker at the August meeting of Compton, California, Gem and Mineral Club. He showed a short movie and spoke on the opal mines "down under."

Four late summer field trips were announced in the August issue of the Colorado Mineral Society's *Mineral Minutes*. Places to be visited were Mount Antero, two old mining camps near Denver, and Custer, South Dakota, destination for the Labor Day holiday.

Mineral and gem collecting at Willow Creek Beach and Jade Cove was anticipated by members of Delvers Gem and Mineral Society, Downey, California. A late August trip was planned to the two coastal sites.

A three-day field trip to Delta, Utah, for trilobites was planned by the Clark County Gem Collectors, Las Vegas, Nevada, for the Labor Day weekend.

"You'll need to invest about \$3000 if you want to search seriously for radioactive ores," Speaker John Loudon told members of Delvers Gem and Mineral Society, Downey, California. Loudon listed a used jeep and gasoline at \$12000; \$1000 for a scintillometer; \$200 for a geiger counter; \$500 or \$600 for food and other supplies and equipment. He described the use of the scintillometer and geiger counter and demonstrated them on samples of radioactive ore.

Two movies, "The Airborne Magnetometer" and the Chicago Natural History Museum's "Through These Doors," were shown at a meeting of the Earth Science Club of Northern Illinois. An auction followed.

Junior members of the Earth Science Club of Northern Illinois went fossil hunting recently. With their adult escort, they visited the Braidwood fossil area in the strip mine district. On a later excursion, the young collectors explored the Coker Mine near Mifflin, Wisconsin, and the Vinegar Hill Zinc Company's dumps east of New Diggings, Wisconsin. At the latter site, a quantity of large lustrous calcite crystals were gathered.

"The Origin of Gem Stone Minerals" was the topic of Dr. W. E. Ham, acting director of the Oklahoma Geological Survey, when he spoke to members of the Oklahoma Mineral and Gem Society, Oklahoma City. Dr. Ham selected 25 of the better known gems and discussed generally accepted theories regarding their formation.

Members of Santa Fe Gem and Mineral Club planned to spend the Labor Day weekend on a field trip outing in Colorado, as guests of the Rio Grande Rock Club. They would visit the upper shores of Farmers Union Reservoir on the Rio Grande. Particularly good hunting grounds nearby are the opal beds on Ute Creek and the egg deposits on the slopes of Pole Mountain.

At an outdoor supper meeting of El Paso Mineral and Gem Society, El Paso, Texas, informal talks were given by members recently returned from vacation trips. Mrs. Mary Vogel told about her five weeks in the Northwest and Canada; Emil Frie related events of his Minnesota stay; the Newells described their two-week tour of the Northwest and Canada, and Ralph Botter spoke of his month-long Navy Reserve cruise to South America. Jack Leasure gave a report of his trip to Palo Duro Canyon, where he found petrified woods and agate.

Northern California Mineral Society was complimented by rockhound visitors at the recent San Diego show for the design and workmanship of its display cases. The cases were constructed by society members.

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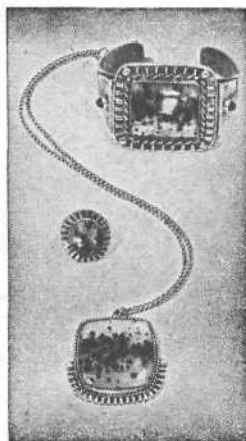
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Potluck dinner was scheduled for the September meeting of San Diego Lapidary Society. A rock sale was planned to raise money for the society's annual Christmas dinner.

Antona Stillwell showed a series of slides taken in Utah at the August meeting of Everett Rock and Gem Club, Everett, Washington.

On a weekend trip to the Rock Creek area near Dougherty, Oklahoma, members of Oklahoma Mineral and Gem Society gathered limonite pseudomorphs after pyrite near the site of an abandoned silver mine. The rockhounds left behind good specimens of petrified wood too large to carry.

August field trip of Long Beach Mineral and Gem Society was to Livingston Quarry, Palos Verdes. The group's annual picnic was scheduled for September in Brea, California.

The large summer issue of the *Georgia Mineral News Letter* contains many well-illustrated articles of interest to geologists, miners, engineers, mineralogists, paleontologists and amateur hobbyists in related fields. Lewis Lipps writes of "Paleontology and Mineralogy in Georgia Schools"; James R. Wells describes electric logging of water wells, and Lane Mitchell, director of the School of Ceramic Engineering at Georgia Institute of Technology, tells of "The Soil Forming Minerals and their Transformations." Also included are stories about recent oil tests in Georgia and interesting mining operations and mineral locations in the state.

Robert Deidrick of East Bay Mineral Society, Oakland, California, accepted the invitation of the Gem and Mineral Society of San Mateo County to speak at a recent meeting. His topic was "Mineral Collecting."

Jack Gaston acted as auctioneer at a recent meeting of Los Angeles Lapidary Society. An abundance of fine material was offered for sale.

A field trip to the Himalaya Tourmaline Mine was scheduled for August by San Diego Lapidary Society. Other excursions planned for future months include a trip to Boulder Dam for flowering agate; to Pinto Mountain in Mexico for chert and petrified wood; to the Calico Mountains for agate and jasper; Turtle Mountains for moss agate; Quartzsite and Wiley Wells for crystals, fire agate and geodes; and Weldon, Arizona, for agate and black geodes. Frank Whigham is field trip chairman.

Mrs. J. D. Martin, former owner of Martins Mineral Mart in Gilroy and Nevada City, has opened a new shop called Hemme of Gilroy. Mrs. Martin traveled 2300 miles in California and Arizona this spring, gathering material for her stock.

Pasadena Lapidary Society planned a Labor Day weekend at Cambria, California, to search the beaches for jade.

An open air meeting was enjoyed by Wasatch Gem Society, Salt Lake City, Utah, at the Copperton home of Russel Anderson. Speaker was Don Jordan, who gave tips on silverworking.

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Topographic Maps Describe Land Features for Rockhounds, Prospectors

One basic requirement for the assessment and utilization of natural resources of a region is an up-to-date large-scale topographic map. Such a map is the control upon which every type of regional or detailed data is plotted and evaluated. Prospectors, rockhounds, fishermen, hunters and hikers find topographic maps indispensable in finding their way about in unfamiliar areas and in relocating points previously visited.

In a recent bulletin of its Mineral Information Service, the California Division of Mines tells the forms, uses and variety of topographic maps and explains how data for them is gathered by trained field technicians.

"A topographic map is one that gives an expression of the land surface," it explains. The most easily understandable type of topographic map is a relief model molded in plaster. Such a model, however, is not only expensive, but it cannot be easily moved.

Some means therefore had to be developed to express topography on a sheet of paper which could be printed and distributed to thousands of people. Symbols such as shading, hachure and contour lines were developed to indicate relief maps. Contours are the most commonly used because of the accuracy with which the elevation of any point in the mapped area may be determined.

A contour is an imaginary line on the ground, which is always at the same elevation above sea level. The shore-line of a lake describes a contour. If the shore-line of a given lake were plotted, one would have two contours with a vertical difference in elevation, or contour interval of 5 feet.

These maps are surveyed or financed by many different groups, but the task of distributing them has been consolidated into two agencies, the U.S. Geological Survey,

which distributes all of the quadrangle maps, and the U.S. Coast and Geodetic Survey, which distributes nautical and aeronautical charts. The U.S. Geological Survey publishes an index map for each state and territory in the United States showing the name, area covered, and date of survey of every map that is available through the Survey. Most of the quadrangle maps may be purchased from the U.S. Geological Survey for 20 cents each, although some of the special maps are priced differently. Maps and indexes of areas west of the Mississippi River may be ordered from: U. S. Geological Survey, Washington 25, D.C. A free descriptive folder on topographic maps and the symbols used on them is also available from either of these offices.—*Mineral Information Service.*

INDIO TO BE 1954 HOST TO CALIFORNIA CONVENTION

Indio's invitation to be host city to the 1954 convention of the California Federation of Mineralogical Societies was accepted at the recent convention in San Diego. Hosts will be the Desert Pass Gem Council of which San Geronimo Mineral and Gem Society of Banning and Coachella Valley Mineral Society of Indio are members. The council plans to establish field trip headquarters at Wiley Wells and will lead collecting excursions from there to such places as the Hauser geode beds, Twin Buttes agate beds, Coon Hollow fire chalcedony site and the agate fields near Chuckawalla Springs.

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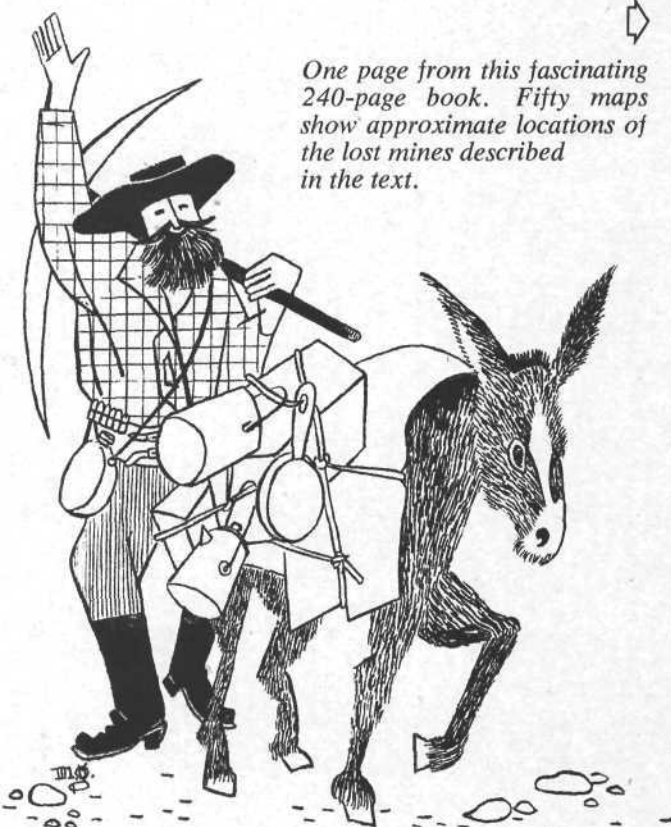
John D. Mitchell's

LOST MINES & BURIED TREASURES ALONG THE OLD FRONTIER

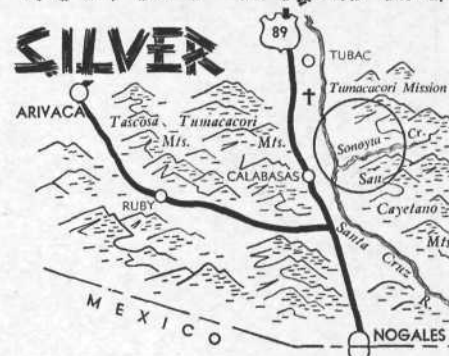
You've read John Mitchell's lost mine tales in Desert Magazine, and a few of you have been lucky enough to see his now-rare first edition, long out of print.

HERE IS A GREATLY EXPANDED SECOND EDITION, including more than 50 of these stories which have become Southwest legends. Each is illustrated with a map of the area in which the lost mine or treasure is reputed to lie. 240 pages, endmaps, hard cover, index. 18 halftone illustrations by John D. Hansen. Maps by Margaret Gerke.

One page from this fascinating 240-page book. Fifty maps show approximate locations of the lost mines described in the text.



OPATA INDIAN SILVER



IT HAS LONG BEEN rumored among the Indians and Hispano-Americans that the Jesuits discovered and for a time worked a rich silver vein in the western foothills of the rugged San Cayetano mountains about three miles southeast of the ancient ruins of San Cayetano de Tumacacori mission, near Tubac, Santa Cruz county, Arizona.

The rich ore was said to have been mined and carried to the adobe furnace on the backs of Pima, Papago and Opatá neophytes. All mining ceased in 1772 when the mission was suddenly raided by a band of Apache warriors, and for many years thereafter the old building lay in ruins.

The mine lay idle for 142 years, or until 1914, when it was discovered and worked on a small scale by an old Opatá Indian

—225—

If you dream of finding lost riches, here are the clues you'll need. We'll not guarantee you'll succeed—in fact, considering past failures, we'll be mighty surprised if you do—but we will guarantee adventure and fun in the clean fresh air of the desert Southwest.

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Desert Magazine Press

Palm Desert, California

BOOKS of the SOUTHWEST

EXPLORING THE GHOST TOWNS OF THE WEST

For three years Muriel Sibell Wolle, art teacher at the University of Colorado, trekked over the West gathering the stories of old-timers, doing research in public and private libraries, and making sketches—and then she wrote *The Bonanza Trail*. It is the most complete record yet published of the ghost towns and mining camps of western United States.

Ghost towns have been a hobby of Mrs. Wolle for many years. Three years ago she wrote *Stampede to Timberline* covering the ghost camps in Colorado and this book is now in its fifth printing.

The new volume includes more than 200 old mining towns and camps in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington and Wyoming. Accompanying the text are maps showing the location by states of each of the camps, and delightful pencil sketches of the old buildings and Main streets in varying stages of disintegration.

All the well known towns are included — Tombstone, Virginia City, Deadwood, Cripple Creek, Coeur d'Alene, Silver Reed, Mogollon, Tonopah, the Mother Lode, and there are scores of abandoned camps of which the average person has never heard.

Of the old La Paz diggings along the Colorado River north of Ehrenberg, of which no vestige remains today, she wrote: "During the seven years that La Paz flourished, both as a gold center and as a river port, \$8,000,000 was washed from its sands and many large 'Chispas' or nuggets, were found in the bateas with which the miners washed the gravels. . . . Then during the spring rise in 1870, the river cut a new channel and left La Paz a mile inland. It was ruined as a port, and, since the placers were about worked out, La Paz began to fade."

An unusually complete history of the old Calico workings is given in the five pages devoted to one of California's best known ghost towns. This is also true of Panamint City, Bodie and other California ghost camps.

The Bonanza Trail rediscovers scores of towns, explores their past and celebrates their present, tells of lucky strikes and sudden ruin, of Indians, road agents and vigilantes—and of the final transition of the camp to a thriving city or a mere name on the map.

Mrs. Woole set a tremendous goal for herself in the writing of this book; and she has done the task well. *The Bonanza Trail* not only is a very readable book, but it is an important contribution to American history.

Published by Indiana University Press. 510 pp, sketches, maps, glossary, bibliography and index. \$8.50.

OF BADMEN AND GOOD, THE TOUGHEST OF THEM ALL

There is a saying in the Old West that "God made big men and little men, but Mr. Colt made eveners." Of the men who carried Mr. Colt's "eveners," some were good and some bad. But all were tough, hard men of an era that itself was tough as a boot.

There was Frank Eaton — "Pistol Pete"—who for ten hate-filled years tracked down and killed his father's murderers. There was gun-lawyer Temple Houston, who didn't hesitate to shoot a jury out of its box to win a verdict; Cherokee Bill, perhaps the most ferocious of all the border badmen; and Vampire Kate Bender whose half-wit brother systematically hammered to death the men she lured to their wayside inn.

These are the actors in an exciting drama unfolded by Glenn Shirley in the new book, *Toughest of Them All*—"not the Hickoks or the Earps or the Jameses, but the little people, forgotten or overshadowed by the others, who may have been, actually, the toughest of them all."

Shirley's stories are based on court records, newspapers, books and personal interviews with old-timers closely connected with the people and events described. The tales are real, vivid and highly seasoned with the rip-roaring zest of the Western frontier.

Published by the University of New Mexico Press. 145 pages, index. \$3.50.

STORY OF MONUMENT VALLEY FULL OF HUMAN INTEREST

Perhaps some day Monument Valley, that fantastic land of spires and buttes and Navajo hogans on the Arizona-Utah border, will become a National Park. There are many who would like to see it given Park status.

But in the meantime it remains one of the West's most fascinating regions, geographically, historically and from the standpoint of human interest—a place that attracts many venturesome American motorists despite its uncertain roads.

The story of Monument Valley is

well told in *Land of Room Enough and Time Enough* recently completed by Richard E. Klinck. The author, in simple prose that every layman can understand, gives a brief history of the geological formation of the valley, dating back perhaps 25 million years. Then came the first human beings, prehistoric men who probably came to America by way of Bering Strait and lived in caves and pithouses.

The present day interest in Monument Valley begins with the arrival of the Wetherill and Wade families, and later Harry and Mike Goulding—and the story of the migration of these families to the area and of their dealings with old Hoskininni the Navajo leader, is a vivid portrayal of one of the most interesting chapters in the history of the West.

This is a small book of high quality, beautifully illustrated with both black and white halftones and photographs in full color.

Published by the University of New Mexico Press. 136 pp. Bibliography and index. \$6.00.

INDIANS CONTRIBUTED MUCH TO BOOK ON OUTDOOR LORE

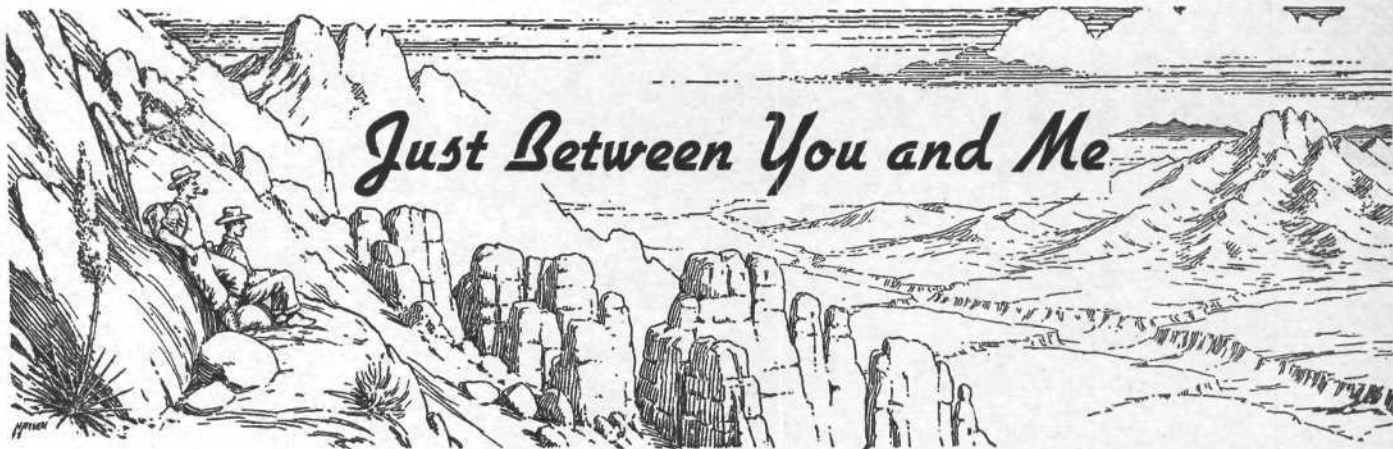
For those whose vacation trails follow little-traveled dirt roads to secluded desert campsites, Ellsworth Jaeger's *Woodsmoke* is a valuable handbook.

"The book of outdoor lore," *Woodsmoke* shows step by step with sketches and diagrams and a concise text, useful crafts and camping skills. Its pages are full of shortcuts, tips and sound advice on all phases of outdoor living. Sections cover shelter and equipment; stalking, luring and calling animals and gamebirds; fishing; the building, use and care of fires; cooking over a campfire, emergency medicinal aids and such lore as how to tell the temperature without a thermometer, how to judge the height of trees without a measuring tool and how to prevent cooking utensils from becoming sooty over an open fire.

The Indians — both Southwestern and Eastern tribes — taught Jaeger much of his outdoor knowledge. From them he learned ingenious ways of making herb medicines, luring animals, calling birds, constructing various types of utility shelters, smoking meat and making mittens, yucca shampoo, cat-tail mattresses and handy burden carriers.

Almost 130 full-page drawings by the author clearly illustrate directions in the text. Indian folklore and anecdotes enliven the book.

Published by The Macmillan Company, New York. 228 pages. \$2.95.



By RANDALL HENDERSON

THIS YEAR I arranged to include both the Smoki snake dance at Prescott, Arizona, and the Hopi snake dance at Walpi on the First Mesa of the Hopi reservation in my summer vacation schedule.

For the information of those who have not witnessed these strange ceremonials, it should be explained that the Hopi dances are part of an ancient religious tradition which the clansmen of the Hopi tribe hold every year in August. At one stage of the 9-day ritual they dance in public with snakes in their mouths. They regard the snakes as their "little brothers" and the role of the reptiles is to convey to the gods the Hopi prayer for rain.

The Smoki dances have been held annually for 33 years. The Smoki are white Americans—business and professional men of Prescott who are members of a secret organization pledged to perpetuate some of the traditional Indian dances of the Southwest. Their dance program, staged under the stars one August night each year, is a composite of several of the tribal ceremonials of the Southwestern Indians. This year the program included the Thanksgiving Festival dance of the Zunis, the Buffalo dance of the Tesuques, a Katchina and a Snake dance of the Hopis, and a dramatic Drum dance evolved from the ancient rites of several of the desert tribes.

The program is in no sense a burlesque. Magnificently staged in authentic native costumes the players go through the roles they have rehearsed for many weeks with all the solemnity of a tribal priest.

I have witnessed both the Hopi and the Smoki dances in previous years, but I wanted to see them again because some of the Hopi clansmen have been quoted in the news dispatches as accusing the Smoki people of holding a ceremony which is a mockery of their religion. I have felt this was an unfair accusation, but I wanted to see if the character of either of the ceremonials has been changed since I last saw them.

* * *

This year, as in previous years, I was deeply impressed by the Smoki dances. The preservation of the native dances is a worthwhile project, and I would be very reluctant to condemn the men of Prescott for giving so generously of their time to a project which has never yielded a penny of profit to themselves.

Actually many of the Indian tribesmen in recent years have been commercializing their own dances. Nor do I feel critical about that, for most primitive religions are based primarily on economic need—the need for fertile seed, for sunshine and rainfall to make the crops grow, for success in the hunt, for protection against raiders and other enemies. And if these religious dances can be made to yield an economic return in other directions I see nothing inconsistent about that. Christianity has a different

viewpoint—but we are not talking about Christianity, but about primitive religions.

* * *

Later in August, Cyria and I sat on a housetop at Walpi on the Hopi First Mesa and witnessed the Hopi snake dance. This year there was injected into the Hopi ceremonial an element which I felt detracted greatly from its religious tone. To make clear just what happened I must go back to a rather significant movement now underway among nearly all the Indian tribesmen in the Southwest.

In 1946 Congress enacted a law granting to the Indian tribes the privilege of bringing suit against the United States government for settlement of any claims they might have for past seizures of land, or for other economic injustices.

The Utes of the Ouray Uintah reservation in Utah were among the first to take advantage of this new law. The tribal council employed a firm of Salt Lake attorneys and asked federal compensation for a huge area of land, mostly in Colorado, which they claimed had been the tribal home and hunting grounds of their ancestors. In September, 1951, the federal court awarded them a \$31,460,216 judgment against the federal treasury as compensation for 11,720,000 acres.

This court award brought an immediate reaction among the Southwestern Indians. Those tribal councils which had not already employed white attorneys to represent them, began preparations for suits similar to that which had been so successful for the Utes.

Today scores of field parties operating under the direction of attorneys and archeologists employed by the various tribal councils are scouring the Southwest in search for ancestral artifacts and other evidence to support claims for compensation for land areas far beyond the limits of the existing reservations. The Navajos, the Papagos and the Hopis are among the tribes which will seek redress from the federal government.

Perhaps these claims are just. I do not know. The courts will decide that. But I must confess that I felt a bit let down when Hopi spokesmen and their attorney spent 45 minutes preceding the dances haranguing the crowd in behalf of the claim they expect to file against Uncle Sam. It was their privilege to do so, of course. But they want their snake dance to be regarded as a religious ceremony—and if they chose to make it an occasion for propaganda, then their accusation that the Smoki dance is a "mockery of their religion" cannot be given much sympathy.

Perhaps after all, the Smoki people of Prescott are rendering an important service both to the Indians and to the white men in preserving the Indian tribal dances without taint of profit to themselves.

GHOST TOWN

CALIFORNIA

AT

KNOTT'S BERRY FARM

Buena Park, California

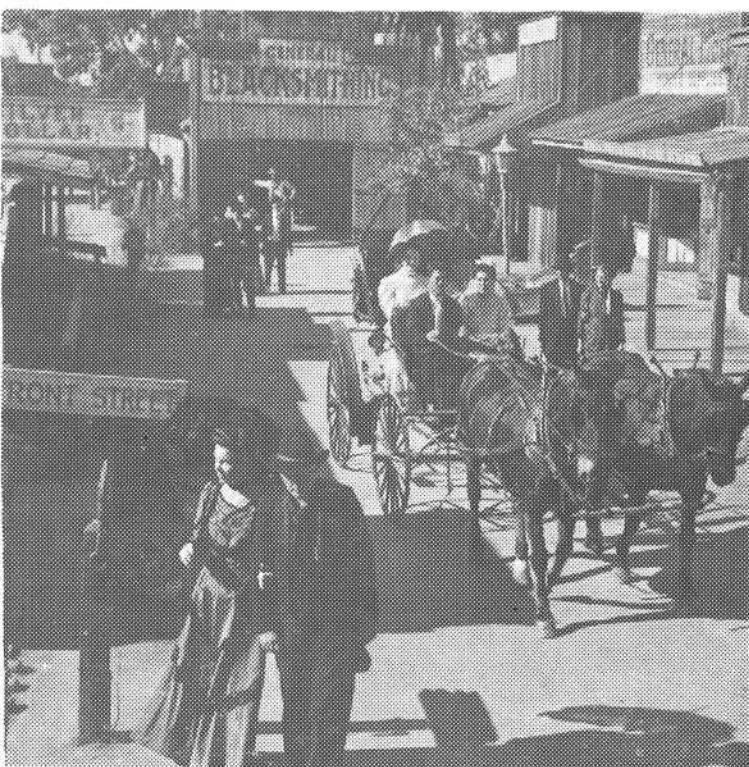
History lessons learned many years ago about the discovery of gold in California, will come to life before your very eyes in this re-created Ghost Town.

Visit it whenever you are in the vicinity of Los Angeles. Walk down the narrow, crooked streets such as the early pioneers trod. See the hangman's tree where early day miscreants met their fate, sit on the Hotel steps with the two old timers who still linger in its shadows. You may pump the old village pump, have your picture taken in the old fashioned setting at the "Pitchur Gallery, watch the glass blower at work, buy old fashioned licorice whips at the General Merchandise Store. You can take a ride on the old narrow gauge railroad, or in a stage coach or covered wagon.



Panning real gold at the Gold Mine

Most astonishing of all you can pan real gold at the Gold Mine. Take what you get home with you as a souvenir to show your friends. The old bearded miners and prospectors will chat with you and tell you about the hardship of the pioneers who crossed the plains in covered wagons, Indians lurking behind every rock and bush. See it all at the Covered Wagon Show where you can witness these hardships so vividly portrayed that you will never forget them.



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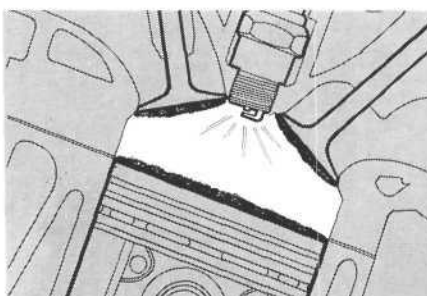
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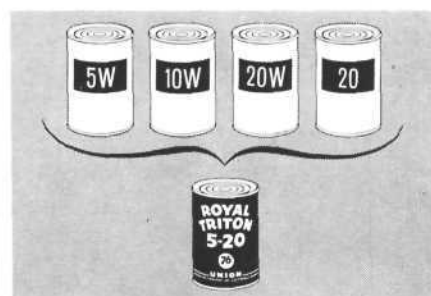
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